



**REFERENCE STANDARD RS-18
ELEVATORS AND CONVEYORS**

***LIST OF REFERENCED NATIONAL STANDARDS**

ANSI/ASME A17.1	Safety Code for Elevators and Escalators and Supplements A17.1a-1997 as Modified.....	1996
ANSI A117.1	American National Standard for Buildings and Facilities Providing Accessibility and Usability for Physically Handicapped People as Modified.....	1986
ANSI B153.1	Safety Requirements for the Construction, Care and Use of Automobile Lifts.....	1981
	FS00-L-360D Motor Vehicle Lifts.....	1987
ANSI/ASME MH14.1	Loading Dock Levelers and Dockboards.....	1987
ANSI/ASME B20.1	Safety Standards for Conveyors and Related Equipment.....	1987
ANSI A10.4	Safety Requirements for Personal Hoists.....	1981
ANSI/ASME A90.1	Safety Standard for Belt Manlifts.....	1985
ANSI B77.1	Safety Requirements for Aerial Passenger Tramways and Supplements B77.1a-86 and B77.1b-88.....	1982
ANSI/ASTM F698	Standard Specification for Physical Information to be Provided for Amusement Rides and Devices as modified.....	1988
** ASNT/SNT-TC-1A	American Society for Nondestructive Testing Certification/ Qualification Recommended Practice in NDT.....	1992
** ASTM 3.03	Standards for Non-destructive Testing	1995
** ASTM F770	Practice for Operation Procedures for Amusement Rides and Devices.....	1988
** ASTM F846	Guide for Testing Performance of Amusement Rides and Devices	1992
** ASTM F853	Practice for Maintenance Procedures for Amusement and Devices.....	1991

*DOB 1-16-03; 5-22-95; 11-91 BCR; 678-85 BCR; 98-83 BCR

**DOB 3-8-96

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ANSI/ASME A17.1-1996 Safety Code for Elevators and Escalators and Supplement A17.1a-1997 as Modified.

Wherever in such Code reference is made to the National Electrical Code ANSI/NFPA NO. 70, substitute New York City Electrical code, Rules and Regulations of the Bureau of Electrical Control of the Department of Buildings and its Advisory Board

Wherever in such Code reference is made to the local Building Code, or model building code, substitute New York City Building Code.

Wherever in such Code reference is made to ASME A17.3, Safety Code for Existing Elevators and Escalators, substitute Article 2 of Subchapter 18 of such chapter.

Modifications.- The provisions of ANSI/ASME A17.1-1996 and Supplement A17.1a-1997 shall be subject to the following modifications. The section numbers are from that standard.

§1. Add or amend the following definitions to

Introduction-Section 3 - Definitions:

(i) Amend the definition designated level to read as follows:
Designated level.-The [main] street floor or other level that best serves the needs of emergency personnel for fire fighting or rescue purposes (applicable to Rule 211.3).

(ii) Add the definition elevator classification between elevator and freight elevator to read as follows:

Elevator Classification.- Elevator is classified as freight or passenger.

(iii) Add the definition elevator, service car between elevator, rooftop and elevator, shipboard to read as follows:

Elevator, Service Car.- A passenger or freight elevator located in an Interim Multiple Dwelling registered with the Loft Board, in accordance with Article 7-C of the Multiple Dwelling Law.

(iv) Add the definition hospital emergency service between hoistway gate and hydraulic elevator to read as follows:

Hospital Emergency Service.- A special operating control function that may be provided for elevators in a building classified in occupancy group H-2 (Hospital) or other applicable medical facility used to transport patient in a life or death situation.

(v) Amend subdivisions a and b of the definition “installation placed out of service” to read as follows:

Installation placed out of service.- An installation whose power feed lines have been disconnected from the mainline disconnect switch and;

(a) an electric elevator, dumbwaiter, sidewalk elevator or material lift whose suspension ropes have been removed, whose car and counterweight rest at the bottom of the hoistway, and whose hoistway doors have been permanently barricaded or sealed in the closed position on the hoistway side;

(b) a hydraulic elevator, dumbwaiter, sidewalk elevator or material lift whose car rests at the bottom of the hoistway; whose pressure piping has been disassembled and a section removed from the premises; whose hoistway doors have been permanently barricaded or sealed in the closed position on the hoistway side; suspension ropes removed and

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counterweights, if provided, landed at the bottom of the hoistway
(c) an escalator or moving walk whose entrances have been permanently barricaded.

(vi) Add the definition patient elevator between passenger elevator and penetrate a floor to read as follows:

Patient Elevator.- An elevator located in a building classified in occupancy group H-2 (hospital) reserved for the "sole" use of vertical transportation of non-ambulatory patients who are incapable of self-preservation because of age, physical or mental disability. Hospital staff or other passengers transporting patient are permitted to ride with the patient. Such elevators must be operated by a designated attendant and shall meet the requirements of rules 211.4 and 211.5(c) of this reference standard.

(vii) Add the definition platform guard (toe guard or apron) between pit elevator and plunger (ram) to read as follows:

Platform Guard (Toe Guard or Apron).- A section of sheet metal the full width of the door opening, securely attached to the car sill and extending downward, protecting the landing zone.

(viii) Delete the definition of private residence and substitute the following:

Private Residence.- A building in occupancy group J-3 except group home as defined in Section 27-266 of article eleven of subchapter three of this chapter.

(ix) Add the definition sky lobby between skirt, escalator and slack-rope switch to read as follows:

Sky Lobby.- The lowest landing of an elevator or a group of elevators located above the street level.

(x) Add the definition smoke hole between slope, moving walk and solid state device to read as follows:

Smoke Hole.- An opening for an elevator hoistway venting in the elevator machine room floor at the top of the elevator hoistway(s).

(xi) Add the definition zero clearance vestibule after yield strength to read as follows:

Zero Clearance Vestibule.- A space on the elevator lobby between the exterior of hoistway door and the security door attached to the elevator hoistway.

§2 Delete and replace subdivision d of rule 100.1 to read as follows:

100.1d Multiple Hoistways.

(1) Not more than three (3) elevators shall be located in buildings with a single hoistway.

(2) Not more than four (4) elevators shall be located in a single hoistway in buildings with more than one (1) hoistway.

(3) Low rise, mid rise and high rise elevators shall be located in separate hoistways.

§3 Amend sub division d of rule 100.3 to read as follows:

100.3d Construction of Floors.- Floors [may] shall be either of concrete, or [may be] of metal construction [with or] without perforations. [Metal floors shall conform to the following:

(1) If of bar-type grating, the openings between bars shall reject a ball $\frac{3}{4}$ in. (19mm) in diameter.

(2) If of perforated sheet metal or of fabricated openwork construction, the openings shall reject a ball 1 in. (25mm) in diameter.]

§4. Delete and replace rule 100.4 to read as follows:

Rule 100.4 Control of Smoke and Hot Gases.

Hoistways of elevators shall be provided with means to prevent the accumulation of smoke and hot gases in case of fire by any one of the following:

100.4a Vents in the hoistway enclosures.

(1) Location of Vents:

(a) In the side of the hoistway enclosure below the elevator machine room floor or in the roof of the hoistway, and shall be open either directly to the outer air or through non-combustible ducts to the outer air.

(b) In the wall or roof of an overhead elevator machine room through the smoke hole in the top of the elevator hoistway and shall be vented to the outer air through non-combustible ducts.

(2) Area of Vents.- The area of vents in hoistway or elevator machine room and area of smoke hole shall be not less than three and one-half (3½) percent of the area of the hoistway nor less than three (3) square feet for each elevator car, whichever is greater, with the following vent types:

(a) Open Vents.- of the total required vent area, not less than one-third ($\frac{1}{3}$) shall be permanently open or with openable hinged damper. Smoke hole shall be permanently open.

(b) Closed Vents.- The two-third ($\frac{2}{3}$) closed portion of the required vent area either in the hoistway enclosure or in the elevator machine room may consist of windows or skylights glazed with plain glass not more than one-eighth ($\frac{1}{8}$) inch thick. A closed damper that will open upon the activation of a smoke detector placed at the top of the hoistway shall be considered closed vents.

100.4b Mechanical ventilation of the hoistway enclosure.- In all elevator and dumbwaiter hoistways where the venting of elevator and dumbwaiter hoistway is by mechanical means, there shall be provided a system of a mechanical ventilation of sufficient capacity to exhaust at least twelve (12) air changes per hour of the volume of such hoistways through a roof or an approved location on an exterior wall other than the lot line wall, and shall be subject to the following:

(1) The smoke detector shall be placed at the top of these hoistways to activate mechanical ventilation system.

(2) A mechanical ventilation system serving these hoistways shall not pass through the overnight sleeping areas of hotel, apartment house, hospital, or similar building.

(3) A manual control to shut down the mechanical ventilation system shall be provided in or near the elevator control panel at the designated level.

100.4c Air pressurization of hoistway enclosure.- where air pressurization of the hoistway is utilized as a means of smoke and hot gas control, the air shall not be introduced into the hoistway in such a manner as to cause erratic operation by impingement on landing or car door equipment, traveling cables, selector tapes, governor

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ropes, compensating ropes, and other components sensitive to excess movement or deflection.

100.4d The Commissioner may accept alternate means to prevent the accumulation of smoke and hot gases in the hoistways of elevators in case of fire.

§5. Amend first paragraph of rule 100.5 to read as follows:

Rule 100.5 Windows and Skylights.

Windows in the walls and skylights at the top of hoistway enclosures are prohibited.

§6 Add subparagraph e to paragraph 1 of subdivision d of rule 101.3 to read as follows:

e. Machine room doors shall be labeled “ELEVATOR MACHINE ROOM” with letters not less than two (2) inches (51 mm) high.

§7 Amend subdivision a of rule 101.5 to read as follows:

101.5a control switch shall be located on the lock-jamb side of the access door.

§8. Amend subdivision c of rule 101.5 to read as follows:

101.5c Receptacle.- A duplex receptacle rated at not less than 15A, 120V with ground fault interrupt shall be provided in each machine room and machinery space.

§9. Amend the second paragraph of rule 102.1 to read as follows:

Rule 102.1 Installation of Electrical Equipment and Wiring In Hoistways and Machine Rooms.

Only such electrical wiring, raceways, and cables used directly in connection with the elevator, including wiring for signs, for communication with the car, for lighting, heating, air conditioning, and ventilating the car, for fire detecting systems, for pit sump pumps, and for heating and lighting the hoistway and/or the machine room and electrical wiring permitted by article one of subchapter eighteen of chapter 1 of title 27 of the administrative code, may be installed inside the hoistway and/or the machine room.

§10. Amend rule 103.1 to read as follows:

Rule 103.1 Location of Counterweights.

Counterweights shall be located in the hoistway of the elevator that they serve [or in a remote hoistway, subject to the limitations and requirements of Rule 103.3].

§11. Amend the title of rule 103.3 to read as follows:

Rule 103.3 Existing Remote Counterweight Hoistways.

§12. Add new paragraph 5 to subdivision b of rule 106.1 to read as follows:

(5) Walk-in pits with floors located at the same elevation as the adjacent floor, access landing will not require separate drainage or sump pumps.

§13. Amend paragraph 1 of subdivision d of rule 106.1 to read as follows:

(1) Access shall be by means of the lowest hoistway door or by means of a separate access door located at the level of pit floor.

§14. Add new subparagraphs d and e to paragraph 4 of such subdivision of such rule to read as follows:

(d) If at any point of travel including the car under full compressed buffer, any equipment attached to the car extends within the hoistway space in the pit, the pit door shall be equipped with door electric contact which shall cause the electric power to be removed from the elevator

driving-machine motor and brake.

(e) If the door electric contact is installed a sign “WARNING- Opening of the Pit Door will Stop Elevator” is attached on the outside of the door.

§15. Amend paragraph 4 of subdivision e of rule 106.1 to read as follows:

(4) A GFI duplex receptacle rated at not less than 15A, 120V shall be provided.

§16. Amend the first paragraph of rule 110.1 to read as follows:

Rule 110.1 Entrances and Emergency Doors Required

All elevator hoistway-landing openings shall be provided with entrances that shall guard the full height and width of the openings. Entrances for passenger elevators shall not be less than 6 ft 8 in. (2032mm) in height and [32 in. (813 mm)] 36 in. (914 mm) in width.

§17. Delete subdivision a of rule 110.1 and replace it with the following:

(a) The clear door opening shall be at least thirty-six (36) inches (914 mm) wide and six (6) feet six (6) inches (1981 mm) high. For floor plan of elevator cars, see subsection 4.10.9 of Section 216.

§18 Delete subparagraph c of paragraph 1 of subdivision a, and paragraph 3 of subdivision b of rule 110.2.

§19. Amend rule 110.6 to read as follows:

Rule 110.6 Opening of Hoistway Doors From Hoistway Side

Passenger elevator hoistway doors shall be so arranged that they may be opened by hand from within the elevator car only when the car is within the unlocking zone {see Rule 111.[12] § (c)}, except at an entrance locked out of service.

Means shall not be provided for locking out of service the doors by padlocks or any other physical locking devices at the following landings:

(a) top terminal landing;

(b) bottom terminal landing;

(c) for elevators equipped with Phase I firefighters' service, the designated and [alternate] sky lobby landings shall not be locked out of service when Phase I is effective;

(d) for elevators equipped with Phase II firefighters' service, no landing shall be locked out of service when Phase II is effective;

(e) consecutive vacant floors;

(f) main lobby street floor.

Locking devices electrically inter-connected into the firemen's service key are permitted.

Automatic fire doors, the functioning of which is dependent on the action of heat, shall not lock any elevator hoistway door so that it cannot be opened manually from inside the hoistway, nor shall such doors lock any exit leading from any elevator hoistway door to the outside of the building.

Handles or other means provided for operation of manually operated doors shall be so located that it is not necessary to reach the back of any panel, jamb, or sash to operate them.

§20. Add new subdivisions a, b and c to such rule to read as follows:

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110.6a Elevator Landings Provided with Zero Clearance Vestibule.- Elevator landings provided with zero clearance vestibule (not to exceed six(6) inches from the elevator hoistway door) are permissible only when locking devices accessible from the car are installed exclusively on the door that separates the zero clearance vestibule from the occupied floor space.

110.6b Elevator Landing on Floors Other than Designated Level Provided with a Vestibule.- Locking devices at the vestibule will be permitted under any one of the following:

(1) A red telephone is installed in the vestibule near the elevator doors in the elevator lobby to communicate with the main lobby fire command station or building manager's office or to central service station when the building is not attended. A sign shall be posted near the telephone. The sign shall read **"In Case of Fire or Other Emergency, Use This Phone to Contact Lobby or Building Manager or Central Service Station"**.

(2) The locking devices on the vestibule door leading to an exit are released upon the activation of any detection or signaling devices or power failure and are approved as fail-safe meeting the requirements of RS17-3A and RS17-3B of such appendix.

(3) At least one exit stair is located within the vestibule.

110.6c Elevator Door Locking on Consecutive Vacant Floors If elevator doors on consecutive vacant floors are to be locked, the locking devices shall be exclusively on vestibule doors meeting the requirements of Rule 110.6a.

§21. Amend paragraphs 1 and 2 of subdivision a of rule 110.7 to read as follows:

(1) The area of any single vision panel shall not be less than [24 in² (0.016 m²)] twelve (12) in² (0.008 m²), and the total area of one or more panels in any hoistway door shall be not more than [80 in² (0.051 m²)] forty (40) in² (0.026 m²).

(2) Each clear panel opening shall reject a ball [6 in (152mm)] four (4) inches (102 mm) in diameter.

§22. Delete subparagraph b of paragraph 4 of such subdivision of such rule.

§23 Add word tools at the end of subparagraph b of paragraph 8 of, and new paragraph 9 to such subdivision of such rule to read as follows:

(9) Vision panels shall be protected in accordance with the provisions of Rule 204.2e(6).

§24. Delete subdivision f of rule 110.11 and re-adopt to read as follows:

(1) Bottom Guides.- Bottom guides shall conform to the following:

(a) The bottom of each panel shall be guided by two or more members.

(b) Guide members shall be securely fastened.

(c) The guide members and any reinforcements or guards shall engage the corresponding member by no less than one forth (¼) inch (6.3mm).

§25. Delete paragraph 6 of subdivision c and subdivision e of rule 110.13.

§26 Add paragraph 6 to subdivision a of rule 110.15 to

read as follows

(6) BS&A or MEA label shall be provided for the entire entrance assembly where required by this rule.

§27 Amend title of section 111 to read as follows:

SECTION 111 HOISTWAY-DOOR LOCKING DEVICES AND ELECTRIC CONTACTS, [AND] HOISTWAY ACCESS SWITCHES AND ELEVATOR PARKING DEVICES

§28. Amend the first sentence of subdivision d of rule 111.2 to read as follows: new and replacement Interlocks shall conform to the following:

111.2 d General Design Requirements.- Both new and replacement Interlocks shall conform to the following requirements:

§29 Delete subparagraphs d and e of paragraph 4 of and add new paragraph 8 to such subdivision of such rule to read as follows:

(8) Interlocks shall be MEA accepted or BS&A approved.

§30 Delete rule 111.3 in its entirety.

§31. Amend paragraph 2 of subdivision c of rule 111.4 to read as follows:

The certifying agency's name, [or] date of approval and identifying number or symbol;

§32. Add rule 111.8 to read as follows:

Rule 111.8 Elevator Parking Device

111.8a Where Required and Location

(1) An elevator parking device shall be provided at one landing if:

(a) the doors are not automatically unlocked when the car is within the unlocking zone; or

(b) the doors are not operable from the landing by a door-open button or floor button.

(2) Parking devices may be provided at other landings.

(3) This device shall be located at a height not greater than 6ft. 11 in.(2108 mm) above floor

111.8b General Design Requirements.- Parking devices shall conform to the following requirements:

(1) They shall be mechanically or electrically operated.

(2) They shall be designed and installed so that friction or sticking or breaking of any spring used in the device will not permit opening or unlocking a door when the car is outside the landing zone of that floor.

(3) Springs, where used, shall be of the restrained compression type which will prevent separation of the parts in case the spring breaks.

§33. Add rule 111.9 to read as follows:

Rule 111.9 Access to Hoistway for Inspection, Maintenance or Repairs

Access means conforming to the requirements of either Rule 111.6a or 111.7a shall be provided at one upper landing to permit access to top of car, and at the lowest landing if this landing is the normal point of access to the pit.

§34. Add rule 111.10 to read as follows:

Rule 111.10 Devices for Making Inoperative Hoistway-

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Door Interlocks or Car-Door or Gate Contacts

Devices other than those specified in Rule 111.7 and Rule 210.1e shall not be installed to render inoperative hoistway-door interlocks or car-door or gate electric contacts (also see Rule 1203.4). Both new and existing elevators shall comply with the provisions of this rule.

§35. Add rule 112.7 to read as follows:

Rule 112.7 Power Operated Horizontal Opening Gates

Horizontal power operated gates shall not be permitted on automatic passenger elevators except in private residence elevators.

§36. Add new paragraphs 1 and 2 to subdivision f of rule 201.4 to read as follows:

(1) A fixed inclined ladder shall be provided where the top of the buffer cylinder is over five (5) feet in height above the pit floor.

(2) A fixed vertical or inclined ladder fitted with an inspection and maintenance platform with guard rails as necessary shall be provided where the top of the car buffer cylinder is over seven (7) feet from the pit floor.

§37. Add the new sentence to the first paragraph of rule 202.4 to read as follows:

Rule 202.4 Compensating Chain or Rope Fastenings

In suspending chains from the frames, provision shall be made for overtravel by looping the chains on "S" hooks fastened to the frames. Compensating chains or ropes shall be fastened to the counterweight frame directly or to a bracket fastened to the frame and shall not be fastened to the tie rods.

§38. Add rule 202.5 to read as follows:

Rule 202.5 Counterweight Material

Counterweight material shall be only steel, iron or lead having a minimum melting temperature of 620 degrees F.

§39. Add new paragraph to subdivision f of rule 204.1 to read as follows:

A guardrail shall be provided where the space between the car enclosure and the nearest wall surface exceeds eight (8) inches. This rail shall be level with the top of the crosshead in the area of the enclosure roof where the top emergency exits are located. In no case shall the guardrail be less than twenty four (24) inches above the car top.

§40. Amend paragraph 1 and subparagraph d of such paragraph and add new subparagraphs e, f and g to such paragraph of subdivision i of such rule to read as follows:

(1) Apparatus or equipment not used in conjunction with the function or use of the elevator shall not be installed inside of any elevator car and permanently installed freight handling equipment in residential passenger elevators shall be prohibited except as follows:

(d) picture frames, graphic display boards, plaques, and other similar visual displays including one (1) advertising sign in commercial buildings limited to three and one half (3½) square feet in area shall be mounted to withstand the required elevator tests without damage. All edges shall be beveled or rounded. The material shall conform to the requirements of Rule 204.1b and 204.2a. When attached to the car wall less than 7 ft above the floor, projections from the car wall, excluding support rails, shall not be greater

than 1½ in (38 mm).

(e) small directories and signs relating to building operation including "No Smoking" signs are permitted.

(f) mirrors in cars in multiple dwellings shall be located to permit a view of the inside by persons entering the car as per Section 27-987(e) of article one of subchapter eighteen of such chapter.

(g) an inspection certificate issued by the commissioner shall be posted as per Section 27-1004 of article four of such subchapter of this chapter.

§41 Add the following new paragraph to subparagraph f of paragraph 2 of subdivision j of such rule to read as follows:

Automatic operation elevators with side emergency exit located in multiple dwelling shall be provided with a tumbler type lock of at least 5-pin type in addition to the lock specified in this rule.

§42. Amend subdivision a of rule 204.2 to read as follows:

204.2a Material for Car Enclosures, Enclosure Linings, and Floor Coverings.- All materials exposed to the car interior and the hoistway shall be metal, laminated glass {Rule 204.1h(3)(a)}, or shall conform to the following.

(1) Materials in their end use configuration, other than those covered by Rules 204.2a(2), and (3), and (4), shall conform to the following requirements, based on the tests conducted in accordance with the requirements of ASTM E 84, UL 723, or NFPA 255:

(a) flame spread [index] rating of 0 to [75] 50;

(b) smoke development of 0 to [450.] 100;

(c) toxicity shall meet the requirements of Section 27-348(e) of the Building Code.

(2) [Napped, tufted, woven, looped, and similar materials in their end use configuration on car enclosure walls shall conform to the requirements of Section 1104. The enclosure walls to which this material is attached shall conform to the requirements of Rule 204.2a(1).] Materials for insulating, sound deadening or decorative purposes may be used for lining enclosures if firmly bonded flat to the enclosure without intervening air spaces. Such materials shall not be padded or tufted, shall be Class A interior finish pursuant to Section 27-348(b) of the Building Code and shall have a smoke development rating of 0 to 25 pursuant to Section 27-348(d) of the Building Code.

(3) Padded protective linings, for temporary use in passenger cars during the handling of freight, shall be of materials conforming to [either] Rule 204.2a(1) [or (2)]. The protective lining shall clear the floor by not less than 4 in. (102 mm).

(4) Floor covering, underlayment, and its adhesive shall [have a critical radiant flux of not less than 0.45 W/cm² as measured by ASTM E 648.] meet the requirements of section 27-351(d) of the Building Code.

(5) Handrails, operating devices, ventilating devices, signal fixtures, audio and visual communication devices, and their housings are not required to conform to the requirements of Rule 204.2a(1) through (4).

§43. Amend paragraph 1 and add new paragraph 6 to subdivision e of rule 204.2 to read as follows:

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(1) be of a total area of not more than [144 in² (0.093 m²),] 72 in² (0.047 m²), and contain no single glass panel having a width exceeding [6 in. (152 mm)] 4 in. (101 mm);

(6) be protected by protective grills made of number 16 gage stainless or galvanized steel in accordance with the following specifications:

(a) Grills shall be sized to fit within or over the vision panel frame and completely cover the vision panel opening in both the elevator car doors and hoistway doors.

(b) Grills and vision panel frames shall be secured by means of non-reversible screws or other tamper proof fasteners.

(c) Grills shall contain openings that shall not be larger than ¾ inch by ¾ inch or ¾ inch in diameter. Such openings shall be spaced at one (1) inch center to center.

(d) All cut edges shall be deburred.

(e) The provisions of subparagraph (6) shall apply to both new and existing passenger cars. Requirements for such grills may be waived if certification is submitted that said elevator is operated manually or twenty-four (24) hour doorman service is provided. A security guard shall not be considered doorman service.

(f) For the purposes of this subparagraph, a vandal resistant one-quarter (¼) inch polycarbonate sheet, such as Lexan, in two (2) layers, one (1) on each side of the required wire glass, may be used in lieu of the metal protective.

§44. Amend paragraph 2 of subdivision h of rule 204.4 to read as follows:

(2) Gates shall be constructed of wood only for private residence elevators [or] and of metal, and shall be of a design which shall reject a ball 2 in. (51 mm) in diameter.

§45 Amend paragraphs 1,2 and 3 of subdivision m of such rule to read as follows:

(1) for horizontally sliding doors or gates, when the clear open space between the leading edge of the door or gate and the nearest of the jamb does not exceed [2 in. (51 mm)] 1 in. (25 mm)[, except as specified in Rule 204.4m(4)];

(2) for vertically sliding counterweighted doors or gates, when the clear open space between the leading edge of the door or gate and the car platform sill does not exceed [2 in. (51 mm)] 1 in. (25 mm);

(3) for horizontally sliding center-opening doors, or vertically sliding biparting counterbalanced doors, or when the door panels are within [2 in. (51 mm)] 1 in. (25 mm) of contact with each other[, except as specified in Rule 204.4m(4)].

§46. Delete paragraph 4 of such subdivision of such rule.

§47. Amend the title of subdivision c of rule 204.5 to read as follows:

204.5c Vertically Sliding Doors [or Gates].

§48. Amend paragraph 4 of such subdivision of such rule to read as follows:

(4) Each elevator shall be provided with [an] a guarded electric light and convenience outlet fixture on the car top and under each elevator car platform for inspection and

maintenance purposes.

§49. Amend the opening paragraph of rule 205.14 to read as follows

A metal plate shall be securely attached to each safety device so as to be readily visible, and shall be marked in a legible and permanent manner with letters and figures not less than ¼ in. (6.3 mm) in height indicating the following:

§50 Amend rule 208.10 to read as follows:

Rule 208.10 Numbering of Driving Machines

A New York City designated elevator device number is assigned by the Elevator Division of the New York City Department of Buildings to each driving machine in every machine room. Such numbers shall be engraved into the metal tag in block type with a minimum of ¼ in. height and securely attached in a permanent manner to the driving machine, controller, MG set or drive unit and the disconnecting means. In addition, [W] when the machinery of more than one elevator is in a machine room, each driving machine shall be assigned a different number which shall be painted on or securely attached to the driving machine. (See also Rule 211.9.)

§51. Amend rule 208.11 to read as follows:

Rule 208.11 Means for Inspection of Gears

Each gear case of geared machines shall have access to permit inspection of the contact surfaces of the gears. [Such access need not provide a direct view of all gears, but shall be located and sized adequately to allow access by fiber optic or similar visual inspection instrumentation.]

§52 Add paragraph 3 to subdivision b of rule 209.3 to read as follows:

(3) Final limit switches and bracket shall be permanently secured.

§53 Amend first paragraph of subdivision e of rule 210.2 and add new paragraph 5 to such subdivision of such rule to read as follows:

(e) Emergency Stop Switch.- [An emergency stop switch is prohibited in the car on passenger elevators.] On all [freight] elevators, an emergency stop switch shall be provided in the car, and located in or adjacent to each car operating panel. When opened, this switch shall cause the electric power to be removed from the elevator driving machine motor and brake.

(5) cause the alarm bells to sound as required by Rule 211.1 when activated in elevators that are operated at any time without a designated in-car operator.

§54 Amend subdivision b of rule 210.4 to read as follows:

(b) Electrical equipment shall [be certified to] meet the requirements of CSA B44.1/ASME A17.5.

§55. Add new subdivision d to rule 210.8 to read as follows:

(d) the power supply line disconnect switch of direct current elevators having rheostat control is opened.

§56. Delete rule 210.14.

§57 Delete rule 210.15.

§58. Add the following sentence to the end of first

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paragraph of subdivision b of rule 211.1.

In the event that this service is disconnected, the emergency service shall notify the Commissioner promptly of the date of such discontinuance. In institutional buildings, the required telephone shall provide communication with building personnel.
§59. Delete subdivision c of such rule.

§60. Amend subdivision a of rule 211.3 to read as follows:

211.3a Phase I Emergency Recall Operation.- A [three] two-position key-operated switch shall be provided [only] at the designated level and at the sky lobby level when provided for each single elevator or for each group of elevators. The [three] two-position switch shall be marked [“BYPASS,” “OFF,” and “ON”] “NORMAL,” and “FIREMAN SERVICE” [(in that order) with the “OFF” position at the center position]. The [three] two-position switch shall be located in the lobby [within sight of the elevator or all elevators in that group] call button fixture or in a separate fixture which shall be located within four (4) feet from the lobby call button fixture and not exceeding six (6) feet above the floor level and shall not be located behind a locked door or cover. The commissioner with concurrence of the fire commissioner may allow [A] an additional two-position [(“OFF” and “ON” in that order)] “NORMAL” and “FIREMAN SERVICE” key-operated switch [shall be permitted at a central control station for fire department operations] at another location. [The switches shall be rotated clockwise to go from the “OFF” to “ON” position.] All keys shall be removable [only in the “OFF” and “ON”] from any position[s].

No device, other than Phase I switch(es) [or the fire alarm initiating device at the elevator floors] , the smoke detectors in the elevator lobbies, machine room, or hoistway (Rule 211.3b1), or the waterflow alarm (Rule 211.b2), shall initiate Phase I operation [(see ANSI/NFPA 72, definition for initiating device)].

Normal elevator service shall be provided and the operation from the smoke detectors required by Rule 211.3b(1) or the waterflow alarm Rule 211.3b(2) shall be functional when Phase I switches are in the [“OFF”] “NORMAL,” position [, except as specified in Rule 211.3a(10)].

[When the designated level three-position switch is in the “BYPASS” position, normal elevator service shall be restored regardless of the status of the smoke detectors required by Rule 211.3b.]

When [three-position switch or two-position] a switch [, when provided,] is in the [“ON”] “FIREMAN SERVICE” position:

(1) All cars controlled by this switch that are on automatic service shall return nonstop to the designated or sky lobby level and power-operated doors shall open and remain open. On cars with two entrances, if both entrances can be opened at the designated or sky lobby level, the doors serving the lobby where the [three] two-position Phase I switch is located shall open and remain open.

(2) A car traveling away from the designated or sky lobby level shall reverse at or before the next available landing without opening its doors.

(3) A car stopped at a landing shall have the in-car

emergency stop switch [or in-car stop switch] rendered inoperative as soon as the car moves away from the landing. A moving car shall have the in-car emergency stop switch [or in-car stop switch] rendered inoperative without delay. Once the in-car emergency stop switch [or in-car stop switch] has been rendered inoperative, it shall remain inoperative while the car is on Phase I operation. All other stop switches required by Rule 210.2 shall remain operative.

(4) A car standing at a landing other than the designated or sky lobby level, with the doors open and the in-car emergency stop switch [or in-car stop switch] in the run position, shall conform to the following:

(a) Elevators having automatic power-operated horizontally sliding doors shall close the doors without delay and proceed to the designated or sky lobby level.

(b) Elevators having automatic power-operated vertically sliding doors provided with automatic or momentary pressure closing operation per Rule 112.3d shall have the closing sequence initiated without delay in accordance with Rules 112.3d(1), (2), (3), and (5), and the car shall proceed to the designated or sky lobby level.

(c) Elevators having power-operated doors provided with continuous pressure closing operation per Rule 112.3b or elevators having manual doors, shall be provided with a visual and audible signal system to alert an operator to close the doors and shall, when the doors are closed, conform to the requirements of Rule 211.3a. Sequence operation, if provided, shall remain effective.

(5) Door reopening devices, for power-operated doors, which are sensitive to smoke or flame shall be rendered inoperative without delay. Door reopening devices not sensitive to smoke or flame (e. g., mechanically actuated devices) are permitted to remain operative. Door closing for power-operated doors shall conform to the requirements of Rule 112.5.

(6) All car and corridor call buttons shall be rendered inoperative. All call registered lights and directional lanterns shall be extinguished and remain inoperative. Car position indicators, where provided, shall remain in service. Hall position indicators, where provided, shall be extinguished and remain inoperative except at the designated or sky lobby level and the central control station, where they shall remain in service for fire department operations.

[(7) Where provided on installations with vertical slide doors, corridor door open and corridor door close buttons shall remain operative.]

[(8)](7) All cars shall be provided with an illuminated visual and audible signal system which shall be activated to alert the passengers that the car is returning nonstop to the designated or sky lobby level. [The visual graphic shall be shown in Fig. 211.3a.] The signals shall remain activated until the car has returned to the designated or sky lobby level.

[(9)](8) A car stopped at a landing shall have the in-car door open button rendered inoperative as soon as the car moves away from the landing. A moving car shall have the

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in-car door open button rendered inoperative without delay. Once the in-car door open button has been rendered inoperative, it shall remain inoperative until the car has returned to the designated or sky lobby level.

[(10) If an additional two-position Phase I switch is provided, it shall not affect Phase I operation if the designated-level smoke detector [Rule 211.3b(2)] has been activated

(11) The "BYPASS" position on the three-position Phase I switch shall not restore the elevator to normal service if the two-position Phase I switch is in the "ON" position.]

§61 Delete subdivision b of rule 211.3 and re-adopt it to read as follows:

211.3b Phase I Fire Alarm Activation

(1) Smoke Detectors.- Except as set forth in subparagraph k of this paragraph, smoke detectors installed in accordance with subparagraphs a,b,c or d shall initiate Phase I emergency recall operation.

(a) In buildings where fire command station is not required or provided, a single smoke detector shall be installed in the ceiling of each elevator landing over the call button on each floor.

(b) In buildings where fire command station is required or provided, either of the following shall apply:

(1) An analog addressable smoke detector employing alarm verification shall be installed in the ceiling of each elevator landing over the call button on each floor or

(2) Two (2) smoke detectors for cross-zoning shall be installed in the ceiling of each elevator landing on each floor and spaced as follows:

(i) in elevator landing containing one (1) or two (2) elevators, the distance between smoke detectors shall be the width of the hoistway(s) but not greater than ten (10) feet.

(ii) in elevator landing containing three (3) or more elevators, the distance between smoke detectors shall be the distance between the centerlines of the end elevators but not greater than twenty (20) feet.

(c)(1) In associated elevator machine rooms of the buildings of subparagraph a above, a smoke detector shall be installed.

(2) In associated elevator machine rooms of the buildings of paragraph b above, either of the following shall be installed:

(i) An analog addressable smoke detector employing alarm verification or

(ii) At least two (2) smoke detectors for cross zoning, spaced twenty (20) feet apart but not closure to the hoistway enclosure walls ¼ distance of the width of the machine room.

(d) A smoke detector shall be installed at top of the hoistway(s) of the buildings classified in occupancy group J-2. Smoke detectors may be installed in any other hoistway and shall be installed in hoistways, which are sprinklered (see Rule 102.2).

(e) Smoke detectors are not required in elevator landings at unenclosed landing which are open to the outside air.

(f)(1) In the buildings of subparagraph a above, where a single smoke detector is installed in the elevator landing, the activation of a smoke detector in any elevator landing, other than the sky lobby shall cause all automatic elevators

servicing floor on which the sensing device is activated to return nonstop to the designated or sky lobby level, except as modified by the commissioner.

(2) In the buildings of subparagraph b above, where either an analog addressable smoke detector or two (2) smoke detectors for cross-zoning are installed, the activation of either an analog addressable smoke detector or any one of two smoke detectors for cross-zoning in any elevator lobby shall only annunciate at the fire command station with floor identification. After verification of an alarm condition either from the analog addressable smoke detector or from the first detector of cross-zoning detectors, the completion of delayed time period of an analog addressable smoke detector or the activation of both smoke detectors for cross-zoning in any elevator lobby other than the sky lobby shall cause all automatic elevators servicing floor on which the sensing device is activated to return nonstop to the designated or sky lobby level, except as modified by the commissioner.

(3) In associated machine rooms of item 1 of subparagraph c above, the activation of smoke detector in the elevator machine room shall cause all automatic elevators having any equipment located in that machine room, and any associated elevators of a group automatic operation to return nonstop to the designated or sky lobby level, except as modified by the commissioner.

(4) In associated machine rooms of item 2 of such subparagraph above, where either an analog addressable smoke detector or two (2) smoke detectors for cross-zoning are installed, the activation of either an analog addressable smoke detector or any one of two smoke detectors for cross-zoning in any elevator machine room shall only annunciate at the fire command station with floor identification. After verification of an alarm condition either from the analog addressable smoke detector or from the first detector of cross-zoning detectors, the completion of delayed time period of an analog addressable smoke detector or the activation of both smoke detectors for cross-zoning in any elevator machine room shall cause all automatic elevators having any equipment located in that machine room, and any associated elevators of a group automatic operation to return nonstop to the designated or sky lobby level, except as modified by the commissioner.

(5) The activation of a smoke detector in any elevator hoistway shall cause, in addition to the activation of mechanical ventilation if provided (see Rule 100.4) all automatic elevators having any equipment located in the hoistway and any associated elevators of a group automatic operation, to return nonstop to the designated or sky lobby level.

The operation of this subparagraph shall conform to the requirements of Rule 211.3a.

(g) When the lowest landing of elevators is above the designated level, such as the sky lobby level, the activation of smoke detectors {Rule 211.3b(1)} in the sky lobby level or the activation of the waterflow alarm {Rule 211.3b(2)} on the sky lobby floor shall cause such elevators to return nonstop to a floor two (2) stories above the sky lobby level

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or in the absence of a stop at that floor, to the nearest landing above the sky lobby level.

(h) Elevators shall only react to the first smoke detector zone that is activated for that group.

(i) Smoke detectors and/or smoke detector systems shall not be self-resetting.

(j) Activation of smoke detectors to initiate elevator recall shall override any automatic programming for car stops but shall not affect the other elevator safety circuits.

(k) The following buildings shall be exempt from the requirements of this rule:

(1) Buildings classified in occupancy group J-2, except they shall comply with the requirements of Rule 211.3b(1)d.

(2) Buildings classified in occupancy group J-3.

(3) Existing buildings less than 75' in height classified in occupancy group G which have at least one (1) elevator available at all times for immediate use by the fire department and which are in compliance with the fire department's regulations governing "life safety requirements for schools with students having physical disabilities".

(4) Existing office buildings, one hundred feet or more in height and existing high buildings as defined by Section 27-232 of the Building Code equipped throughout with an automatic sprinkler system including a waterflow alarm.

(2) Sprinkler Waterflow Alarm.- A building equipped throughout with an automatic sprinkler system, a waterflow alarm when activated shall initiate Phase I (Rule 211.3a) emergency recall operation.

§62 Amend subdivision c of rule 211.3 to read as follows:

211.3c Phase II Emergency In-Car Operation.- A three-position (["OFF"] "NORMAL", "HOLD", and ["ON"] "FIREMAN SERVICE" in that order) key-operated switch shall be provided in an operating panel in each car. The switch shall be rotated clockwise to go from the ["OFF"] "NORMAL" to "HOLD" to ["ON"] "FIREMAN SERVICE" position. It shall become effective only when the designated or sky lobby level Phase I switch (Rule 211.3a) is in the ["ON"] "FIREMAN SERVICE" position or a smoke detector (Rule 211.3b(1)) or waterflow alarm (Rule 211.3b(2)) has been activated, and the car has returned to the designated or [alternate] sky lobby level by Phase I operation.

The key shall be removable in [each] "NORMAL" or "HOLD" position. The ["OFF,"] "NORMAL," "HOLD," and ["ON"] "FIREMAN SERVICE" positions shall not change the operation until the car is at a landing with the doors in the normal open position.

(1) When the Phase II switch is in the ["ON"] "FIREMAN SERVICE" position, the elevator shall be on Phase II operation, [for use by trained emergency service personnel only,] and the elevator shall operate as follows:

(a) The elevator shall be operable only by a designated person in the car.

(b) All corridor call buttons and directional lanterns shall remain inoperative. Car position indicators, where provided, shall remain in service. Hall position indicators, where provided, shall remain inoperative except at the designated level, sky lobby level and the central control station, where

they shall remain in service for fire department operations.

(c) The opening of power-operated doors shall be controlled only by a continuous pressure door open button. If the button is released prior to the door reaching the normal open position, the doors shall automatically re-close. Rules 112.4(a), 112.3c, and 112.3d do not apply. On cars with two entrances, if both entrances can be opened at the same landing, separate door-open buttons shall be provided for each entrance.

(d) Open power-operated doors shall be closed only by [continuous] momentary pressure on the door close button. [If the button is released prior to the doors reaching the fully closed position, horizontally sliding doors shall automatically reopen and vertically sliding doors shall automatically stop or stop and reopen.] On cars with two entrances, if both entrances can be opened at the same landing, a separate door-close button shall be provided for each entrance.

(e) Opening and closing of power operated car doors or gates which are opposite manual swing or manual slide hoistway doors shall conform to the requirements of Rules 211.3c(1)(c) and (d). Door opening and closing buttons shall be provided in the car operating panel.

(f) [All door] Door reopening devices [shall be] rendered inoperative, per Rule 211.3a(5) shall remain inoperative. Full speed closing is permitted. Corridor door opening and closing buttons, if provided, shall be rendered inoperative.

(g) Every car shall be provided with a button marked "CALL CANCEL" located in the same car operating panel as the Phase II switch, which shall be effective during Phase II operation. When activated, all registered calls shall be canceled and a traveling car shall stop at or before the next available landing.

(h) Floor selection buttons shall be provided in the car to permit travel to all landings served by the car and they shall be operative at all times. Means [to] which prevent the operation of the floor selection buttons or door operating buttons shall be rendered inoperative.

(i) A traveling car shall stop at the next available landing for which a car call was registered. When a car stops at a landing, all registered car calls shall be cancelled.

(j) The emergency stop switch shall remain operative.

(2) When the Phase II switch is in the "HOLD" position, the elevator shall be on Phase II operation. The car shall remain at the landing with its doors open. The door close buttons shall be inoperative.

(3) When the Phase II switch is in the ["OFF"] "NORMAL" position, the elevator is not at the designated or sky lobby level and Phase I is in effect, the elevator shall operate as follows .

(a) Automatic power-operated horizontally-sliding doors shall close automatically and the car shall revert to Phase I operation (Rule 211.3a) upon completion of door closing. All door reopening devices shall remain inoperative. Door open buttons shall remain operative. Full speed closing is permitted. If the Phase II switch is turned to the ["ON"] "FIREMAN SERVICE" or "HOLD" position prior to the

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completion of door closing, the doors shall reopen.

(b) Elevators having power operated vertically sliding doors shall have corridor door open and close buttons rendered operative. All door reopening devices shall remain inoperative. Door closing shall be in accordance with the requirements of Rule 211.3c(1)(d). Full speed closing is permitted. If the Phase II switch is turned to the ["ON"] "FIREMAN SERVICE" or "HOLD" position prior to the completion of door closing, the doors shall reopen. The car shall revert to Phase I operation (Rule 211.3a) upon completion of door closing.

(c) Elevators having manual doors shall revert to Phase I operation (Rule 211.3a) upon completion of door closing.

(4) When the Phase II switch is in the ["OFF"] "NORMAL" position and the car is not at the designated or the sky lobby level, and Phase I is not in effect, the car shall remain at the landing with the doors open and door-close buttons inoperative[.] and shall remain in Phase II.

(5) Elevators shall only be removed from Phase II operation when :

(a) The Phase II switch is in the ["OFF"] "NORMAL" position and the car is at the designated or sky lobby level with the doors in the normal open position; or

(b) The Phase II switch is in the ["OFF"] "NORMAL" position when Phase I is in effect {Rule 211.3c(3)}.

(6)(a) For all elevators, applications filed after March 12, 1991 (the effective date of adoption of Cal #11-91-BCR), which propose the installation, alteration or change of controller, elevator machinery and any other work, excluding minor alteration and ordinary repairs as defined in Sections 27-124 and 27-125 of article five of subchapter one of this chapter, and applications filed for new elevator, the cost of which exceeds \$10,000 per car over a twelve (12) month period or applications filed for compliance with the requirements of Section 27-996.2 of subchapter eighteen of this chapter shall comply with the requirements of this subdivision.

(b) Applications filed between November 17, 1989 and March 12, 1991 for existing elevators which propose the work described in (6)(a) above, shall comply with the requirements of this subdivision.

(c) In elevators subject to the requirements of (6)(a) and (b) above, a "HOLD" position by means of either a three-position switch or a two-position switch in addition to an existing two position ("NORMAL" and "FIREMAN SERVICE") switch and designate the "HOLD" position by engraving or permanently affixing a label to the operating panel of the elevator car.

(d) Applications filed for the installation or modification of Phase II Emergency In-Car Operations/Fireman's Service in existing elevators for which a permit was issued prior to November 17, 1989 and the work completed by November 16, 1991 need not provide for the retrofitting of a "HOLD" position on the Emergency In-Car Operating switch, however, the permittee can elect to provide a "HOLD" position.

§63. Amend subdivision d of such rule to read as follows:

211.3d Interruption of Power.- Upon the resumption of

power (normal, emergency, [or] standby or actuation of in-car emergency stop switch), the car [may] shall move in the down direction to [reestablish absolute car position] designated or sky lobby level. Restoration of electrical power following a power interruption shall not cause any elevator to be removed from Phase I or Phase II operation.

§64. Add two new subdivisions f and g to such rule to read as follows:

211.3f Emergency Power Selection Switch.- When emergency power is furnished (Rule 211.2) a manual elevator emergency power selection switch shall be provided at the main floor and other levels, approved by the Commissioner to override any automatic sequence operation. If the manual elevator emergency standby power selection switch is of the key-operated type, the switch keys shall conform to the requirements of Rule 211.8.

211.3g Identification of Switches and Buttons

(1) All keyed switch positions and buttons required by this subdivision shall be identified with the appropriate designation in red lettering.

(2) All cover plates for such switches and buttons shall bear the lettering "**FOR FIRE DEPARTMENT USE ONLY.**"

§65. Amend subdivision a of rule 211.4 to read as follows:

211.4a Phase I Emergency Recall Operation.- A [three] two- position key-operated switch shall be provided only at the designated or the sky lobby level for each single elevator or for each group of elevators. The [three] two-position switch shall be marked ["BYPASS," "OFF," AND "ON"] "NORMAL" and "FIREMAN SERVICE" (in that order). The Commissioner with the concurrence of the Fire Commissioner may allow [A] an additional two-position key-operated switch marked ["OFF" and "ON"] "NORMAL" and "FIREMAN SERVICE" (in that order) [may be provided] at [any] other location, however, it shall not affect Phase I operation if the designated-level or sky lobby-level smoke detector or waterflow alarm (Rule 211.4b) has been activated. The switch(es) shall be rotated clockwise to go from the ["OFF"] "NORMAL" to ["ON"] "FIREMAN SERVICE" position.] All keys shall be removable [only in the "OFF" and "ON"] from any position[s].

No device, other than Phase I switch(es), [or] the smoke detectors in the elevator lobbies, machine room, or hoistway (Rule 211.3b1), or waterflow alarm in lieu of smoke detectors in the elevator lobbies (Rule 211.3b2) shall initiate Phase I operation.

When all switches are in the ["OFF"] "NORMAL" position, normal elevator service shall be retained and operation from the smoke detectors or waterflow alarm required by Rule 211.4b shall be functional.

[When the designated-level three-position switch is in the "BYPASS" position, normal elevator service shall be restored independent of the smoke detectors required by Rule 211.4b.]

When a Phase I switch is in the ["ON"] "FIREMAN SERVICE" position, a visual and audible signal shall be

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provided to alert the attendant to return nonstop to the designated or [alternate] sky lobby level. The visual signal shall read "FIRE RECALL – RETURN TO {insert level to which the car should be returned (the designated or [alternate] sky lobby level)}. The [signal system] The smoke detectors or waterflow alarm shall be activated when Phase I is in effect.

[If an additional two-position Phase I switch is provided it shall not affect the visual signal if the designated-level smoke detector {Rule 211.3b(2)} has been activated.

The "BYPASS" position on the three-position Phase I switch shall not restore the elevator to normal service if the two-position Phase I switch is in the "ON" position.]

§66. Delete subdivision b of this rule and re-adopt it to read as follows:

211.4b Phase I Smoke Detectors or Waterflow Alarm Devices Activation.- Smoke detectors shall be installed in accordance with the requirements of Rules 211.3b(1)(a),(b),(c), and (d).

Phase I operation, conforming to Rule 211.4a shall be initiated when either any smoke detector, in accordance with the requirements of Rule 211.3b(1)(f) or waterflow alarm, in accordance with the requirements of Rule 211.3b(2) is activated.

(1) When the lowest landing of elevators is above the designated level such as the sky lobby level, the activation of smoke detectors or waterflow alarm in sky lobby or sky lobby floor shall cause such elevators to return nonstop to a floor two (2) stories above the sky lobby level or in the absence of a stop at that floor, to the nearest landing above the sky lobby level.

(2) Elevators shall only react to the first smoke detector zone that is activated for that group.

(3) Smoke detectors and/or smoke detector system shall not be self-resetting.

(4) Activation of smoke detectors to initiate elevator recall shall override any automatic programming for car stops but shall not affect the other elevator safety circuits.

(5) The buildings described in Rule 211.3b(1)(k) and meeting its requirements and buildings equipped throughout with an automatic sprinkler system are exempt from the requirements of this rule.

§67. Amend subdivision b of rule 211.5 to read as follows:

b) When operated by a designated attendant in the car (except hospital emergency service):

(1) elevators parked at a floor shall conform to the requirements of Rule 211.3a(8)(7). At the completion of a time delay of not less than 15 seconds or more than 60 seconds, elevators shall conform to the requirements of Rule 211.3.

(2) a moving car shall conform the requirements of Rule 211.3.

§68 Delete subdivision c and re-adopt it to read as follows:

(c)(1) Hospital Emergency Service Recall Operation. A two-position key-operated corridor call (Hospital Emergency Service) switch is provided at one or more landings to activate the special control function by authorized or designated personnel. The two-position switch shall be

marked "NORMAL" and "HOSPITAL EMERGENCY SERVICE". Keys shall be removal only in the "NORMAL" position.

(a) When a switch is in the "HOSPITAL EMERGENCY SERVICE" position:

(1) All patient elevator cars equipped with the special control function, override normal automatic operating modes for immediate recall of the patient elevator(s) to the landing at which the call is registered.

(2) On patient elevator cars with two entrances, if both entrances can be opened at the designated level, The doors serving the corridor where the two-position Hospital Emergency Service switch is located shall open and remain open.

(3) A patient elevator car traveling away from the designated level shall reverse at or before the next available landing without opening its doors.

(4) A patient elevator car stopped at a landing other than the designated level, with the doors open and in-car emergency stop switch in the run position, shall close the doors without delay and proceed to the designated level.

(5) A visual and audible signal is activated within the patient elevator car to alert the passengers and/or attendant operator that the "Hospital Emergency Service" function has been activated.

(4) Upon arrival at the registered call landing, power operated doors open automatically and remain in the open position for a predetermined adjustable time period to allow the authorized personnel sufficient time to activate the "In-Car" special operation function.

(6) If the Phase I (Rule 211.3a) recall mode is initiated while the elevator is under "Hospital Emergency Service" recall mode and "In-Car" hospital emergency service is not activated, the elevator shall revert to Phase I Rule 211.3a) operation.

(7) Hospital emergency service corridor recall shall not override fire emergency Phase I (Rule 211.3a) or Phase II (Rule 211.3c) operation in effect.

(c)(2) Hospital Emergency Service In-Car Operation.

A two-position "NORMAL" and "HOSPITAL EMERGENCY SERVICE" key-operated switch is provided in an operating panel inside the patient elevator(s) to activate the "Hospital Emergency Service, a special independent operating mode. The switch shall be rotated clockwise to go from the "NORMAL" to "HOSPITAL EMERGENCY SERVICE" position. It shall become effective only when the designated level corridor call "Hospital Emergency Service" switch is in the "HOSPITAL EMERGENCY SERVICE" position and car has returned to the designated level by "Hospital Emergency Service" recall operation.

(a) When the "In-Car" switch is in the "HOSPITAL EMERGENCY SERVICE" position, the patient elevator shall be on Hospital emergency Service operation, and the patient elevator shall operate as follows:

(1) The patient elevator shall be operable only by a designated person in the car.

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(2) Activation of the “In-Car” operating mode removes the patient elevator from normal automatic and/or attendant service.

(3) After the activation of “In-Car” operation mode, the patient elevator(s) shall not be recalled under Phase I (Rule 211.3a) operation.

(4) Doors remain open until the authorized person registers the car call and initiate the door closing function.

(5) The patient elevator shall travel directly to the selected landing overriding normal corridor call demand or Phase I (Rule 211.3a) recall and automatically opens the doors upon the arrival at the selected landing, except when the smoke detector(s) are activated on the selected landing or the waterflow alarm is activated on that floor before the patient elevator has reached the selected landing, the patient elevator shall stop at a floor two stories below the selected landing or in the absence of a stop at that floor, at the nearest landing below the selected landing.

(6) The patient elevator has reached the selected floor and the smoke detector(s) are activated on that landing or the waterflow alarm is activated on that floor before the doors are open, the patient elevator without opening the doors shall travel to a floor two stories below the selected landing or in the absence of a stop at that floor, to the nearest landing below the selected landing.

(7) Doors shall remain open with the audible and visual signal functioning until the “in-Car” switch is turned to the “NORMAL” position or for a predetermined adjustable time period to allow the removal of patient from the car and the patient elevator is placed into automatic, attendant or Phase I (Rule 211.3a) if in effect, operating mode.

(8) Upon transfer from “HOSPITAL EMERGENCY SERVICE” back to normal operation during a fire emergency and Phase I (Rule 211.3a) is in effect, the patient elevator shall be automatically recalled to the designated level.

(c)(3) Hospital Emergency Service Switches Color. Color of the Hospital Emergency Service switches located in corridor at the designated level and inside the patient elevator(s) operating panel shall be “BLUE”.

§69 Delete rule 211.7.

§70. Amend rule 211.8 to read as follows:

The switches required by Rule 211.2 through 211.5 for all elevators in a building shall be operable only by [the same] a city-wide standard key and shall also made operable by the Fire Department standard key. [This key shall not be part of a building master key system. There shall be a key for the designated level switch and for each elevator in the group.] The citywide standard key shall be designed in accordance with the requirements of the Fire Department and shall be obtained only through Fire Department authorization. [These] Citywide standard keys shall be kept on the premises by a person responsible for the maintenance and operation of the elevators in a location readily accessible to authorized [personnel] persons in an emergency, but not where they are available to the public.

[NOTE (Rule 211.8): Local authorities may specify a uniform keyed lock box to contain the necessary keys.]

§71. Delete paragraph 3 of subdivision e of rule 212.9 and

re-adopt it to read as follows:

(3) Suppliers of wedge sockets shall submit certification with an MEA Number after successfully passing the tests described in Rule 212.9e(1) and(2) at an MEA certified testing laboratory to secure MEA acceptance. Sockets shall be tagged with visible permanent manufacturer’s identification with an MEA Number.

§72. Amend rule 213.1 to read as follows:

Rule 213.1 Qualification of Welders

Where required by another Rule of the [this] Code welding of parts, except for tack welds later incorporated into finished welds, shall be done by welders qualified in accordance with the requirements of [Section 5 of ANSI/AWS D1.1.

At the option of the manufacturer or contractor, the welders may be qualified by one of the following:

(a) the manufacturer or contractor;

(b) a professional consulting engineer;

(c) a recognized testing laboratory.] The City of New York. When the manufacturer is located in the City of New York its welders shall be licensed in accordance with the provisions of the Administrative Code. When the manufacturer is not located in the City of New York its welders shall either be licensed in accordance with the provisions of the Administrative Code, or in the alternative, pursuant to paragraphs (f) and (o) of Section 25-01 of Title 2 of the Rules of the City of New York, shall possess documentary evidence from a testing laboratory acceptable to the Commissioner attesting that the applicant has passed the qualification test prescribed by the City of New York.

§73. Adopt section 4.10 Elevators of ANSI A117.1-1986 as modified as a new section 216.

SECTION 216

Passenger Elevators Designed to

Accommodate Persons Having Disabilities

Section 4.10 Elevators

4.10 General

(i) Amend the last sentence of subsection 4.10.1 to read as follows:

Freight elevators shall not be considered as meeting the requirements of this section unless the only elevators provided are used as combination passenger and freight elevators meeting the requirements of rule 207.4 of ANSI A17.1-1996.

4.10.2 Automatic Operations

4.10.3 Hall Call Buttons

4.10.4 Hall Lanterns

4.10.5 Raised Characters on Hoistway Entrances

4.10.6 Door Protective and Reopening Device

4.10.7 Door and Signal Timing for Hall Calls

4.10.8 Door Delay for Car Calls

4.10.9 Floor Plan of Elevator Cars

(ii) Amend subsection 4.10.9 of this section to read as follows:

4.10.9 Floor Plan of Elevator Cars.- The floor area of elevator cars shall provide space for wheelchair users to enter the car, maneuver within reach of controls, and exit from the car. Acceptable door opening and inside dimensions

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shall be as shown in Figure 22 with the following exception for the existing installation. The clearance between the car platform sill and the edge of any hoistway landing shall be no greater than [1¼ inch (32 mm)] 1½ inch (38 mm).

Exception:

1. The replacement of an existing elevator car whose clear depth is 48 inches or more and width is 48 inches or more but less than 54 inches and are limited by the existing car platform or hoistway shaft. The door opening shall be 32 inches.

2. The replacement of an existing car need not comply with the requirements of door opening, if the clear depth and width are less than 48 inches and is limited by the existing car platform or hoistway shaft.

3. If the new car door opening is larger than the hoistway door opening, the travel of car shall be limited to the opening of the hoistway door.

4.1010 Floor Surfaces

4.10.11 Illumination levels

4.10.12 Car Controls

4.10.13 Car position Indicators

4.10.14 Emergency Communication.

§74 Amend rule 300.2 to read as follows:

Rule 300.2 Machine Rooms and Machinery Spaces

Machine rooms and machinery spaces shall conform to the requirements of Rule 101.1 through 101.5 and Rule 101.7 and shall be vented to the outside air naturally or mechanically.

§75 Add the following sentence to the end of subdivision g of rule 300.8 to read as follows:

Space above the escape hatch defined by the guard railing shall be designated as the refuge space.

§76 Amend the first paragraph of rule 301.8 to read as follows:

Rule 301.8 Car Safeties

Car safeties shall be provided for roped-hydraulic elevators and [shall be permitted to be provided for] direct-acting hydraulic elevators.[when provided ,c] Car safeties shall conform to the requirements of Section 205 and to the following:

§77. Delete rule 303.7.

§78. Amend paragraph 2 of subdivision a of rule 306.3 to read as follows:

(2) It shall maintain the car within [25mm (1 in.)] 13 mm (1/2 in.) of the landing irrespective of the position of the hoistway door. See subsection 4.10.2 of Section 216.

§79. Amend subdivision b of rule 306.6 to read as follows:

(b) Electrical equipment shall [be certified to] meet the requirements of CSA B44.1/ASME A17.5.

§80. Amend subdivision b of rule 508.4 to read as follows:

(b) Electrical equipment shall [be certified to] meet the requirements of CSA B44.1/ASME A17.5.

§81. Delete PART VI in its entirety.

§82. Amend paragraph 2 of subdivision e of rule 702.4 to read as follows:

(2) Electrical equipment shall[be certified to] meet the requirements of CSA B44.1/ASME A17.5.

§83. Delete section 800 and re-adopt it to read as follows:

SECTION 800

PROTECTION OF FLOOR OPENING

Rule 800.1 Protection required

Floor openings for escalators shall be protected against the passage of flame, heat and/or smoke or gases in the event of fire.

Rule 800.2 Escalators Accredited as a Required Means of Egress

Escalators accredited as a required means of egress shall meet the requirements of Section 27-378 of article five of subchapter six of this chapter.

Rule 800.3 Escalators not Accredited as a Required Means Of Egress

Escalators not accredited as a means of egress shall have the floor openings protected by any one of the following:

800.3(a) Full enclosures- as specified in Rule 800.2 of this section.

800.3(b) Automatic rolling shutters-

Unenclosed escalators, which are not protected as specified in subdivision a of this rule shall be equipped with a power-operated automatic rolling shutter at every floor pierced thereby, constructed of noncombustible materials with a fire resistance rating of not less than one and one-half (1½) hours.

Construction.- The shutter shall close immediately upon the activation of the fire detection system in the building and shall completely close the well opening. The shutter shall operate at a speed of not more than 30 feet per minute (0.15 m/s) and shall be equipped with a sensitive leading edge to arrest its progress when in contact with any obstacle, and to continue its progress on release therefrom. There shall be a manual means of operating and testing the operation of the shutter. The shutters shall be operated by building personnel at least once a week to assure that they remain in proper operating condition.

800.3(c) Sprinkler protection-

In buildings completely protected by an automatic sprinkler system complying with the construction requirements of subchapter seventeen of this chapter, escalator openings shall be protected by a draft curtain and by a deluge sprinkler system designed to form a vertical water curtain.

Draft curtain.- A draft curtain shall be installed in each story of the floor opening. The draft curtain shall enclose the perimeter of the opening and shall extend from the ceiling downward at least twenty-four (24) inches on all sides. The lower edge of the draft curtain shall be not less than twelve (12) inches below the bottom of the sprinkler heads. Sprinkler heads of the deluge sprinkler system shall be within two (2) feet of the draft curtain.

§83A. Amend rule 802.3c to read as follows:

802.3e Clearance Between Balustrades and Steps.-

The clearance on either side of the steps between the steps and the adjacent skirt guard shall be not more than three-sixteenths (3/16) inch, and the sum of the clearances on both sides shall be not more than one-quarter (1/4) inch.

§83B. Delete the EXCEPTION to Rule 802.3c.

§84. Delete rule 805.2 and re-adopt it to read as follows:

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Rule 805.2 Starting Devices

In every new and existing escalator, starting devices shall be provided with the combination of a starting switch and a starting button. The escalator shall be started only after the activation of both the switch and the button.

(a) Starting Switch.- Starting switch shall be of continuous pressure spring return type and shall be operated by a cylinder type lock having five-pin, five-disc or five-tumbler combination. Starting switch shall be of three-position type and shall be clearly marked as follows:

NORMAL.- A central position for the key entry and spring return position.

START-UP.- A right side position for starting the escalator in the upward direction.

START-DOWN.- A left side position for starting the escalator in the downward direction.

(b) Starting Button.- Starting button shall be of the constant pressure type and located within six (6) inches from the starting switch. It shall be clearly marked “Starting Button”.

(c) Cover Plate.- The starting devices shall be protected by a locked, transparent cover plate that can be opened by the starting key and clearly marked “For Start Only.”

(d) Location of starting devices.- Starting devices shall be located at top and bottom of the escalator on the right side-facing newel.

NOTE: The starting key shall be kept on the premises at all times and may only be accessible to persons authorized to start escalators. It shall also be made available to the Commissioner or his representative.

§85. Amend paragraph 1 of subdivision a of rule 805.3 to read as follows:

(1) Location.- A red stop button shall be visibly located at the top and bottom landings on the right side facing the escalator. Remote stop buttons are prohibited except that any escalator connected to an automatic fire alarm system shall gradually stop not exceeding the speed of 3 ft per sec² (0.91 m/s²) upon the activation of such system.

§86. Amend subdivision f of such rule to read as follows:

805.3f Skirt Obstruction Device.- Means shall be provided to cause the electric power to be removed from the escalator driving machine motor and brake, if an object becomes caught between the step and the skirt as the step approaches the upper [or] combplate, intermediate device or lower combplate. On units having a run of twenty (20) feet or more intermediate devices shall be provided on both sides of the escalator with devices located at interval of ten (10) feet or less. The activation intermediate devices shall stop the escalator at a rate not greater than 3 feet per second square in the direction of travel. The upper and lower combplate devices shall be located so that the escalator will stop before that object reaches the combplate. The activation of any skirt device shall stop the escalator with any load up to full brake rated load with escalator running {Rules 802.9c(1)(b) and 802.9c(2)(b)}.

§87. Amend the first paragraph of subdivision n of such rule to read as follows:

805.3n Combplate Impact Devices.

Two independent devices, one at the side of the combplate and the other at the center of the front edge of the combplate shall be provided. Devices [which] will cause the opening of the power circuit to the escalator driving machine motor and brake if either:

§88. Add new subdivision q to such rule to read as follows:

805.3q Comb-Step Stop Device.- On every new and existing escalator a comb-step stop device shall be provided at the upper and the lower comb-steps. Any obstruction exerting a pressure of 45 lbs for steps not exceeding thirty two (32) inches in width and 60 lbs for steps over thirty two (32) inches in width between the step tread and comb-step shall activate the comb-step stop device to cause the electric power to be removed from the escalator driving machine motor and brake.

§89 Amend the first paragraph of subdivision k of rule 905.3 to read as follows:

905.3k Comb-Pallet Impact Devices. Two independent devices, one at the side of the comb-pallet and the other at the center of the front edge of the comb-pallet shall be provided. Devices [which] will cause the opening of the power circuit to the moving walk driving machine motor and brake if either:

§90. Add new subdivision l to rule 905.3 to read as follows:

905.3l Comb-Pallet Stop Device.-In every new and existing moving walkway, a comb-pallet stop device shall be provided at the entrance to and exit from a moving treadway. Any obstruction exerting a pressure of 45 lbs for treadway not exceeding thirty two (32) inches in width and 60 lbs for treadway over thirty two (32) inches in width between the moving treadway and comb-pallet shall activate the comb-pallet stop device which will cause the opening of the power circuit to the moving walk driving-machine motor and brake.

§91 Delete rule 1000.1 and re-adopt it to read as follows:

Rule 1000.1 Persons Authorized to Make Inspections and Tests

The inspector shall meet the qualification requirements of the Department of Buildings of the City of New York.

§92. Delete rule 1000.3 and re-adopt it to read as follows:

Rule 1000.3 Installation Placed Out of Service

Where for any reason an installation is placed out of service permanently or temporary (see Section 3 definition) so that it cannot be operated for a definite period, it shall comply with the following requirements:

1000.3a Elevators Are Not in Use.- If these elevators are available for service, all required tests shall be regularly performed. These elevators are similar to those in service except that their power feed lines have been disconnected by opening the main line switch. A periodic inspection shall be made and a fee charged. An elevator inspector shall note such requirements when found on a regular inspection.

1000.3b Elevators Placed Out of Active service (Dismantled).- These elevators shall meet the requirements of Section 3 definition for installation placed out of service. In addition, a Building Notice application shall be filed and

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the last inspection fee charged. Thereafter, one (1) additional inspection per year shall be made to verify that the status is unchanged and fees shall be paid for such inspection. Before the installation is put back in service, a Building Notice application is filed. For access, it shall comply with the requirements of Rule 1000.3c(1)(b)(4).

1000.3c Elevators Are Removed and Permanently Discontinued

(1) When a single elevator with one elevator shaftway is removed and permanently discontinued, a Building Notice application shall be filed, fees charged for last inspection and shall meet the following requirements for such discontinuance for sealing of elevator hoistway shaft:

(a) If it is proposed to extend the floor at every story of the building, the new construction shall be the same or of similar construction as the existing adjacent floor and of equivalent or better fire resistive rating. Also the elevator car and guide rails, the counterweight and guide rails, all wire cables and other equipments in the hoistway shaft shall be completely removed.

(b) If the hoistway shaft is to remain open-

(1) in addition to the requirements of subparagraph a above except floor construction, all door and window assemblies opening onto masonry shaftway and masonry enclosed associated machine rooms, except as noted in item 4 of this subparagraph below shall be completely removed and the open space so created shall be filled with the same material of equal thickness, or similar material and of equivalent or better fire restive rating as the adjacent masonry.

(2) all door and window assemblies opening onto hoistway shaft originally enclosed with an open wire screen and subsequently enclosed with other than masonry units (i.e. metal lath and plaster or transite boards), except as noted in item 3 of this subparagraph below, shall remain. However, the door and window assemblies shall be fastened in a closed position and shall be adequately welded shut. The assembly shall, in addition, be enclosed in material of equal thickness, or of similar material and of equivalent or better fire resistive rating as the adjacent enclosure.

(3) the sidewalk elevator door at the street level shall be fastened in a closed position and shall be adequately welded shut. The underside of such door, shall be properly reinforced and supported by steel beams and columns so as to support the same loading as the sidewalk.

(4) Fireman access to the bottom of the hoistway (elevator pit) shall be provided through the door assembly of the pit door and shall meet the following requirements:

(i) if the machine room is located at or near the level of the bottom of the shaftway and is so located that access to the bottom of the shaftway is readily available through the machine room, the door to the machine room shall be kept closed with a substantial dead bolt locking device openable only with an elevator key.

(ii) if the machine room is located other than at or near the level of the bottom of the shaftway or the bottom of the shaftway is not readily accessible through the machine room, the lowermost door opening onto the shaftway shall be kept closed with a substantial dead bolt locking device

openable only with an elevator key. A conspicuous sign of one (1) inch block letters with contrasting background permanently affixed to the door and shall read "HOISTWAY".

(iii) the key to the locking device required in subitems (i) and (ii) above shall be kept by the building superintendent and is readily available to the Commissioner or his representative and the fireman.

(c) The ventilation opening (smoke hole) in the flooring provided at the top of the hoistway immediately below the sheaves or at the level of the top of the machine room floor beams and the ventilation opening at the exterior portion of the machine room shall be maintained.

(d) All electric service to the elevator hoistway and machine room shall be disconnected outside the confines of the elevator hoistway and machine room.

(2) When a single elevator in multi-elevator shaftway is removed and permanently discontinued, a Building Notice application shall be filed, fees shall be charged for the last inspection and shall meet the following requirements for such discontinuance sealing of elevator hoistway shaft.

(a) If it is proposed to extend the floor at every story of the building it shall meet the requirements of subparagraph (a) of paragraph (1) of this subdivision, and the shaft enclosure is rearranged so that the remaining operating elevators are properly enclosed to maintain the integrity of the shaftway.

(b) If the hoistway shaft is to remain open-

(1) in addition to the requirements of subparagraph (a) of paragraph (1) of this subdivision except for floor construction, all door assemblies serving the discontinued elevator, opening onto masonry shaftway shall be completely removed and the open space so created shall be filled with the same material of equal thickness, or of similar material and of equivalent or better fire resistive rating as the adjacent masonry.

(2) all door assemblies serving the discontinued elevator, opening onto hoistway shaft originally enclosed with an open wire screen and subsequently enclosed with other than masonry units (i.e. metal lath and plaster or transite boards), shall remain. However, the door assemblies shall be fastened in a closed position and shall be adequately welded shut. The assembly shall, in addition, be enclosed in material of equivalent or better fire resistive rating as the adjacent enclosure.

§93 Adopt new rule 1000.4 to read as follows:

Rule 1000.4 Escalator Installation Placed Out of Service

1000.4a Escalators Are Not in Use. If these escalators are available for service, all required tests shall be regularly performed. These escalators are similar to those in service except that their power feed lines have been disconnected from the mainline disconnect switch and their entrances have been barricaded. A periodic inspection shall be made and fee charged. An elevator inspector shall note such requirements when found on a regular inspection.

1000.4b Escalators are Discontinued or Placed Out of Active Service.

In addition to the requirements of Rule 1000.4a, a Building Notice application shall be filed and the last inspection fee

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charged. Thereafter, one (1) additional inspection per year shall be made to verify that the status is unchanged and fees shall be paid for such inspection. Before the installation is put back in service, it shall be subject to all of the required routine and periodic inspections and tests.

1000.4c Escalators are Removed and Permanently Discontinued. A Building Notice application shall be filed and fees charged for the last inspection. The escalator steps, newels, rails, all wire cables and other equipments of escalator and machinery shall be completely removed.

An opening created by the removal of the escalator, it shall be filled with new construction of the same or of similar construction as the existing adjacent floor and of equivalent or better fire restive rating.

§94 Adopt new rule 1000.5 to read as follows:

Rule 1000.5 Moving Walk Installation Placed Out of Service

1000.5a Moving Walks are Not in Use. If these moving walks are available for service, all required tests shall be regularly performed. These moving walks are similar to those in service except that their power feed lines have been disconnected from the mainline disconnect switch and their entrances have been barricaded. A periodic inspection shall be made and fees charged. An elevator inspector shall note such requirements on a regular inspection.

1000.5b Moving Walks are Discontinued or Placed Out of Active Service. These moving walks shall meet the requirements of Rule 1000.5a except for periodic inspection. In addition, a Building Notice application shall be filed and the last inspection fee charged. There after, one (1) additional inspection per year shall be made to verify that the status is unchanged and fees shall be paid for such inspection. Before the installation is placed back in service, it shall be subject to all of the required routine and periodic inspections and tests.

1000.5c Moving Walks are Removed and Permanently Discontinued. A Building Notice application shall be filed and fees charged for the last inspection. The moving walk treadways, newels, rails, all wire cables and other equipments of moving walk and machinery shall be completely removed.

An opening created by the removal of the moving walk shall be covered by new construction of the same or of similar construction as the existing adjacent floor and of equivalent or better fire resisting rating.

§95 Amend rule 1001.1 to read as follows:

Rule 1001.1 Inspection and Test Periods

The routine inspection and tests of passenger and freight electric elevators shall be made at intervals [not longer than 6 months] of five (5) times every two years, or as otherwise provided by the commissioner per Section 27-998(a) of article three of subchapter eighteen of such chapter. All references to Items are to Items in A17.2, Inspections' Manual for Electric Elevators.

NOTE {Rule 1001.1}: See Rule 1010.2 for private residence elevators.

§96 Amend rule 1002.1 to read as follows:

Rule 1002.1 Inspection and Test Periods In addition to the routine inspection and tests (Rules 1001.1 and 1001.2), the inspection and tests specified in Rule 1002.2 shall be

performed at intervals not longer than [1] 2 years, and the inspections and tests specified in Rule 1002.3 shall be made at interval not longer than 5 years.

NOTE {Rule 1002.1}: See Rule 1010.2 for private residence elevators.

§97 Amend title of rule 1002.2 and add new paragraph to such rule to read as follows:

Rule 1002.2 [1] 2 Year Inspection and Test Requirements Exception to 2 year inspection and test requirements of this rule shall be as specified in the following subdivisions.

§98 Amend subdivision a of such rule to read as follows:

1002.2a Oil Buffers. Car and counterweight buffers shall be tested at an interval of not longer than one (1) year as per Section 27-998(a) (2) of the Building Code to determine conformance with the applicable plunger return requirements (Rule 201.4e: Item 5.3.2).

§99 Amend paragraph 1 of subdivision b of such rule to read as follows:

(1) Inspection. All working parts of car and counterweight safeties shall be inspected at an interval of not longer than 1 year as per Section 27-998(a)(1) of the Building Code to determine that they conform to the applicable requirements and Section 1202 (Rules 205.10 and 205.11; Division 112).

§100 Amend subdivision c of such rule to read as follows:

1002.2c Governors. Governors shall be tested at an interval of not longer than one (1) year as per Section 27-998(a)(2) and shall be inspected and operated manually to determine that all parts, including those which impart the governor pull through tension to the governor rope, operate freely. Item 2.28.2(a). In addition to two (2) year inspection, the tag shall be inspected at an interval of not longer than one (1) year.

§101 Add new subdivision o to rule 1003.3 to read as follows:

(o) When controller is changed and mode of operation remains the same, the following tests shall be required:

(1) Full load operational test

(2) 125% test and pull switch at lowest landing after stop for five (5) minutes.

Definition of full load operational test:

(1) Top to bottom at contract speed.

(2) Contract load, stop level ($\pm 1/2$ "') at every stop up and down.

§102 Add new subdivision L to rule 1003.2 to read as follows:

1003.2L Brake. A test of the brake shall be made with 125% of load. When the car returns to the lowest landing, pull the main line switch while the car is being stopped to ensure the brake has set and holds the load.

§103 Amend rule 1004.1 to read as follows:

Rule 1004.1 Inspection and Test Periods

The routine inspection and tests of passenger and freight hydraulic elevators shall be made at intervals [not longer than 6 months] of five (5) times every two (2) years or as otherwise provided by the commissioner per Section 27-998(a) of article three of subchapter eighteen of such chapter. All references to Items are to Items in A17.2.2,

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Inspectors' Manual for Hydraulic Elevators.

NOTE: {Rule 1004.1}: See Rule 1010.2 for private residence elevators.

§104 Amend rule 1005.1 to read as follows:

Rule 1005.1 Inspection and Test Periods

In addition to the routine inspections and tests (Rules 1004.1 and 1004.2), the inspections and tests specified in Rule 1005.2 shall be performed at intervals not longer than [1] 2 years, the inspections and tests specified in Rule 1005.3 shall be made at intervals not longer than 3 years, and the inspections and tests specified in Rule 1005.4 shall be made at intervals not longer than 5 years.

NOTE: See Rule 1010.2 for private residence elevators.

§105 Amend the title of rule 1005.2 to read as follows:

Rule 1005.2 [1] 2-Year Inspection and Test Requirements

§106 Add new subdivision d to rule 1005.4 to read as follows:

(d) Full load test will not be required. Pressure test shall be performed in accordance with Item 2.14.2 of ASME A17.2b-1996.

§107 Amend rule 1007.1 to read as follows:

Rule 1007.1 Inspections and Test Periods

Routine inspections and tests of escalators and moving walks shall be made at intervals not longer than 6 months for moving walks and at intervals of five times every two (2) years per Section 27-998(b) of article three of subchapter eighteen of such chapter. All references to Items are to Items in A17.2.3 Inspectors' Manual for Escalators and Moving Walks.

§108 Amend rule 1008.1 to read as follows:

Rule 1008.1 Inspection and Test Periods

In addition to the routine inspection and test (Rules 1007.1 and 1007.2), the inspection and tests specified in Rule 1008.2 shall be performed at intervals not longer than [1] 2 years.

§109 Amend the title of rule 1008.2 to read as follows:

Rule 1008.2 [1] 2-Year Inspection and Test

§110 Add new subdivisions, r, s and t to such rule to read as follows:

1008.2r Combplate Stop Switch.

1008.2s Test Report Form. All testing requirements for escalators required by this rule shall be reported on Form ELV3-Rev-1998 (2 year test for escalators) of the Department of Buildings.

1008.2t Test Tag. 2-year test tag for escalators and moving walks shall be affixed in the vicinity of the lower starting device for escalators and of the starting device and the entrance of the moving walks.

§111 Amend the first paragraph of rule 1010.2 to read as follows:

Rule 1010.2 Private Residence Elevators and Lifts

Private residence elevators and lifts [should be subject to the applicable routine and periodic inspections and tests, and] shall be subject to acceptance inspections and tests specified in Sections [1000 through 1006] 1003 and 1006. [Routine inspection should be performed at intervals not longer than 1 year.]

§112 Amend first paragraph of rule 1010.4 to read as follows:

Rule 1010.4 Dumbwaiters

Dumbwaiters shall be subject to the applicable [routine, periodic and] acceptance inspections and tests specified in Sections [1000 through 1006] 1003 and 1006. [Routine inspections shall be performed at intervals not longer than 1 year.]

§113 Add second paragraph to rule 1102.1 to read as follows:

The lap edges of passenger (A17.1 horizontal slide type) elevator door, including the lap edges of multi-section doors, shall not move from the wall or adjacent panel sufficiently to develop a separation of more than two (2) inches during the fire portion of the test and not more than two and seven-eighth (2 7/8) inches during or immediately following the hose stream test.

§114 Delete section 1104.

§115 Amend subdivision f of rule 1200.4 to read as follows:

1200.4f Labeled and Listed Devices. When a component in a labeled and listed device, including but not limited to interlocks (Rule 111.2), fire doors (Rule 110.15) [, and electrical equipment {Rules 210.4(b), 306.6.6(b),etc.}] is replaced, the replacement component shall be subject to the requirement of [B44.1/A17.5 and /or] the engineering type test in Part XI. When a component in a labeled and listed device of electrical equipment {Rules 210.4(b), 306.6(b), 508.4(b), 702.4(e)(2), etc.} is replaced, the replacement component shall be subject to the requirements of B44.1/ASME A17.5 and/or the engineering type test in Part XI.

§116 Delete subdivision b of rule 1200.5.

§117 Amend subdivision a of rule 1201.11 to read as follows:

1201.11a Interlocks. Where the alteration consists of the installation of hoistway door interlocks, the installation shall conform to the requirements of Rules 111.1, [111.3, 111.5, 111.6, 111.7, 111.9, 111.10, 111.11, 111.12] 111.2, 11.5, 111.6, 111.7, 111.10, and 208.8.

§118 Amend subdivision b of such rule 1 to read as follows:

1201.11b Mechanical Locks and Electric Contacts. Where the alteration consist of the installation of hoistway door combination mechanical locks and electric contacts, the installation shall conform to the requirements of Rules 111.1, [111.4, 111.5, 111.6, 111.7, 111.9, 111.10, 111.11, 111.12] 111.2, 111.3, 111.4, 111.5, 111.6, 111.7, 111.10, 111.12, and 208.8.

§119 Amend subdivision c of such rule to read as follows:

1201.11c Parking Devices. Where the alteration consists of the installation of elevator parking devices, the installation shall conform to the requirements of Rules [111.8, 111.9, 111.10, 111.11, 111.12] 111.5, 111.6, 111.7, 111.8, 111.10, and 208.8.

§120 Amend subdivision d of such rule to read as follows:

1201.11d Access Switches and Unlocking Devices. Where the alteration consists of the installation of hoistway access switches or hoistway door unlocking devices, the installation shall conform to the requirements of Rules [111.9, 111.10,111.11, 111.12] 111.5, 111.6, 111.7,

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111.10, and 208.8.

§121 Add new rule 1201.13 to read as follows:

Rule 1201.13 Elevator Alteration in Commercial Buildings Being Converted to Residential Occupancy

All new and existing passenger or freight elevators, located in commercial buildings being converted into an interim multiple dwellings registered with the Loft Board in accordance with Article 7-c of the Multiple Dwelling Law are designated as service elevators and shall comply with Section 211 and Local Law 5 of 1073, Local Law 16 of 1984 and Local Law 17 of 1995 and all applicable revisions. The following items shall comply with this Rule:

(1) Freight Elevators. Existing freight elevators may be used to carry passengers when they have been altered to conform to this Rule.

(2) Machine Rooms. Existing machine rooms or machinery spaces including all access assemblies shall have a minimum fire resistance rating of 1-hour and shall be vented in conformance with the requirements of Rule 100.4.

(3) Location of Equipment and Electrical Wiring. Equipment in machine rooms shall be in conformance with the requirements of Rule 101.2.

(4) Structural Supports. At the machine room level and one story below the machine room, all new beams and columns supports shall be of structural steel. Structural supports of existing wood shall be subject to controlled inspection and shall be properly fire protected. These requirements shall also apply to elevator machine supports located in basements. Supports shall comply with the requirements of Rule 105.1.

(5) Pits. A pit shall conform to the requirements of Rule 106.1.

(6) Hoistway Doors. Hoistway doors, conforming to the requirements of Rule 110.1 shall be self-closing, either vertical or horizontal sliding or swing-type with at least 1-hour fire resistance rating.

(7) Locations of Car Door. The maximum distance between the hoistway face of the car door and hoistway face of the hoistway door shall not exceed 5½ inches and shall conform to the requirements of Rule 204.4e(2).

(8) Vision panels. Vision panels and protective grills on manually operated door shall conform to the requirements of Rules 204.2e and 204.5e. Grills shall be provided on all existing vision panels.

(9) Interlocks and Electrical Contacts. Hoistway doors shall be provided with accepted interlocks and electrical contacts conforming to the requirements of Rule 111.1.

(10) Elevator Parking Devices. When required by Rule 111.8a elevator parking devices shall be provided conforming to the requirements of Rule 111.8b.

(11) Guide Rails. Elevator car and counterweight guide rails conforming to the requirements of Rule 200.1 shall be provided.

(12) Buffers. Buffers conforming to the requirements of Rule 201.1 shall be provided.

(13) Car Enclosures. Materials of elevator car enclosures shall conform to the requirements of Rule 204.2a. Wood

platforms shall conform to the requirements of Rule 203.6d.

(14) Top Emergency Exit. Elevators shall be equipped with a car enclosure, which shall have a top emergency exit conforming to the requirements of Rule 204.1e.

(15) Car Safeties and Governor. Cars shall be provided with a car safety conforming to the requirements of Rule 205.1. Governor rope shall be either of iron or steel and shall meet the requirements of Section 206.

(16) Rated Load. The rated load in pounds for a service car shall be calculated based on inside net platform area conforming to the requirements of the passenger elevator, Rule 207.1.

(17) Terminal Stopping Devices. Terminal stopping devices conforming to the requirements of Section 209 shall be provided.

(18) Operating Devices. Operating devices conforming to the requirements of Rule 210.1 shall be provided.

(19) Ropes. Elevator cars shall be suspended by iron or steel wire ropes conforming to the requirements of Rule 212.1.

§122 Amend paragraph 2 of subdivision b of rule 1202.5 to read as follows:

(2) Where an alteration is made to a side emergency exit, or where a new one is installed, it shall conform to the requirements of Rule 2041j. Side emergency exit may be eliminated but corresponding elevator side emergency exit must also be eliminated.

§123 Amend paragraphs 2, 3, and 4 of subdivision c of such rules to read as follows:

(2) Where an existing enclosure other than specified in Rule 1202.5(c)(1) is retained and new material is installed, the new material and adhesive shall conform to the following requirements, based on the tests conducted in accordance with the requirement of ASTM E 84, UL 723 or NFPA 255:

(a) Flame spread rating of 0 to 25

(b) Smoke development of 0 to [450] 100.

(c) Toxicity shall meet the requirements of Section 27-348(e) of the Building Code.

If the material or combination of materials installed exceeds ¼ in. (6.4 mm) in thickness, the car enclosure shall conform to the requirements of Rule 204.2a(1).

(3) [Napped, tufted, woven, looped, and similar materials shall conform to the requirements of Rules 204.2a(1) and (2) or Rule 1202.5(c)(2) and Sections 1104 and 1106. Adhesive shall conform to the requirements of Rule 1202.5(c)(2).] Materials for insulating, sound deadening or decorative purposes may be used for lining enclosures if firmly bonded flat to the enclosure without intervening air spaces. Such materials shall not be padded or tufted, shall be Class A interior finish pursuant to Section 27-348(b) of the Building Code and shall have a smoke development rating of 0 to 25 pursuant to Section 27-348(d) of the Building Code.

(4) Floor covering, underlayment, and its adhesive shall [have a critical radiant flux of not less than 0.45 W/cm² as measured by ASTM E 648] conform to the requirements of Rule 204.2(a)(4).

Reference Standard 18

§124 Amend subdivision b of rule 1202.10 to read as follows:
1202.10[b]c Increase in Rated Speed

§125 Add new subdivision b to such rule to read as follows:

1202. 10b Decrease in Travel. Where an alteration involves a decrease in travel which eliminates top terminal floor landing, it shall, in addition to requirements of Rule 1202.10a meet the requirements of any one of the following:

(1)(a) If the wall is erected in front of elevator entrance openings, the unused shaftway doors shall be sealed with through-bolts. Electromechanical safety interlocks wired into safety circuit of each elevator shall remain.

(b) New slow-down, normal and final limits for the new top terminal floor landing shall be installed.

(c) Access provisions for the original top floor landing from the car operating panels shall be removed.

(d) The original final limits shall remain operable at the top of the hoistway for safety.

(e) Access to the original top terminal landing shall be provided for maintenance and servicing of hung secondary equipment and inspection of wire rope cables per ASME A17.2 Standards.

(f) Elevator car enclosures shall be equipped with side and top emergency exits.

(2)(a) If the wall is erected in front of elevator entrance openings, a suitable access shall be provided for emergency situations.

(b) Inspection control shall allow qualified personnel to bypass the new limits on speed for maintenance and inspection.

(c) The new top terminal final limit switch shall be design for manual resetting.

(d) The system shall be capable of a double electrical protection with the same run-by (36" for oil hydraulic buffers) clearance to stop mechanically using the counterweight buffer when an over-speed malfunction occurs.

(e) The original top terminal landing shall be available for maintenance and inspection.

(f) The safety interlock must be used for the corridor entrance doors in circuit with an access key provision.

§126 Amend paragraph 1 of subdivision d of rule 1202.12 to read as follows:

(1) When a controller is installed in place of an existing controller, without any change in the type of operation or control, the new controller shall conform to the requirement of Rules 210.4 and 210.9. The installation shall also conform to the requirements of Rules 210.6, 210.7, 210.8, 211.3 through [211.8]211.9, and Section 209.

§127 Amend the last paragraph of rule 1202.13 to read as follows:

Where an alteration is made to firefighters' service operation, the installation shall conform to the requirements of Rules 211.3 through [211.8]211.9.

§128 Add new subdivision e to rule 1202 .14 to read as follows:

1202.14e Wedge Clamp Shackles. Where an alteration is made to provide wedge clamp shackles, the installation shall be filed by the Professional Engineer or the Registered Architect and shall conform to the requirements of Rule

212.9e. In addition, the installation for retrofits, cable repair replacements, etc., shall provide installation of apparatus on both sides of cable ends (car and counterweight) and submit the design of cable hitch plates, clearances between shackles, staggering of shackles for entrance, use of tensioning, isolation bushing and other hardware used in conjunction with the adjustment.

§129 Amend paragraph 3 of subdivision h of rule 1203.8 to read as follows:

Where an alteration is made to firefighters' service operation, the installation shall conform to the requirements of Rules 211.3 through [211.8]211.9.

§130 Amend and re-designate paragraph 3 as 5 and add new paragraphs 3 and 4 to subdivision a of rule 1206.3 to read as follows:

(3) for counterweight cables of drum machines re-shackling at the counterweight ends, 4 years.

(4) In addition to foregoing requirements, rope fastenings shall be renewed when an inspection reveals any evidence of failure at the shackle regardless of the period of time since last re-shackling.

[3)] (5) Where auxiliary rope-fastening devices conforming to the requirements of Rule 212.10 or where car hoist ropes with an additional MEA accepted type emergency clamping devices are installed, refastening at the period specified is not required provided that, where such devices are installed, all hoisting ropes shall be refastened on the failure or indication of failure of any rope fastening.

§131 Amend first paragraph of sub division c of such rule to read as follows:

1206.3c Tags. A metal tag (see Appendix K) shall be securely attached to one of the wire rope fastenings after each resocketing or changing to other types of fastenings, and shall bear the following information:

§132 Amend paragraph 6 of subdivision b of rule 1206.5 to read as follows:

(6) Flexible hose and fitting assemblies shall be replaced by the manufacturers' date indicated on the existing equipment but not less than six (6) years. Hose assemblies that do not indicate a replacement date shall be replaced. Replacement shall conform to requirements of Rule 303.3c (1)(e).

§133 Amend the first paragraph of rule 1207.1 to read as follows:

Rule 1207.1 General Requirements

Any alteration to an escalator shall comply with the requirements of Rules 805.1, 805.2, 805.3a, 805.3e, 805.3f, 805.3n, 805.3q, 805.7, 1200.1, and 1200.2

§134 Amend rule 1207.8 to read as follows:

Rule 1207.8 Combplates

Any alteration of the combplates shall require conformance with the requirements of Rules 805.3n and 805.3q.

§135 Amend the first sentence of the first paragraph of rule 1208.1 to read as follows:

Any alteration to a moving walk shall comply with requirements of Rules 905.2, 905.3a, 905.3e, 905.3f, 905.3k, 905.3l, 905.6, 906.2, 1200.1, and 1200.2.

Reference Standard 18

§136 Amend subdivision a of rule 2000.7 to read as follows:

2000.7a Limitation of Load, Speed, and Travel. The rated load shall be not less than 450 lb (204 kg) or more than 750 lb (340 kg). The lift shall be capable of sustaining and lowering a load as specified in Rule 207.1. The rated speed shall not exceed 30 ft/min (0.15m/s). The travel shall not exceed [12ft (3658mm) nor] 25ft (7621mm) and shall not penetrate [a] more than one floor. Platforms with an area greater than 15 ft² (1.39 m²) shall have a rated load of not less than 750 lb (340 kg).

§137 Amend subdivision a of rule 2100.7 to read as follows:

2100.7a Limitation of Load, Speed, and Travel. The rated load shall be not less than 450 lb (204 kg) or more than [700] 750 lb (340 kg). Platforms with an area greater than 15 ft² (1.39 m²) shall have a rated load of not less than [700] 750 lb (340 kg). The lift shall be capable of sustaining and lowering a load as specified in Rule 207.1. The rated speed shall not exceed 30 ft/min (0.15 m/s). The travel shall not exceed [10 ft (3048 mm) nor] 25 ft (7621 mm) and shall not penetrate [a] more than one floor.

§138 Amend the first paragraph of Rule 2500.13 to read as follows:

When provided, power operation, power opening, and power closing of hoistway doors and car doors [and gates] shall conform to the requirements of Section 112, except as modified by this Rule.

§139 Amend subdivision a of such rule to read as follows: (a) Rule 112.1(b). Vertically sliding doors are not permitted. Power operated swing hoistway doors shall not be permitted with power operated horizontal operated car doors.

§140 Amend paragraph 2 of subdivision a of rule 2501.8 to read as follows:

(2) The inside net platform area shall not exceed 18 ft² (1.67 m²) but not less than 4'X4' with a minimum 32 inches clear door opening. The C/O/P shall be on the strike wall.

§141 Delete Appendix G of ANSI/ASME A17.1-1996 in its entirety.

§142 Delete Appendix H of such standard and re-adopt it to read as follows:

APPENDIX H

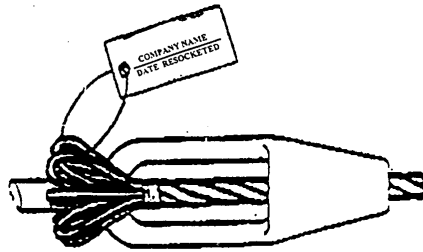
SIGNS AT ELEVATOR LANDINGS

Signs at elevator landings shall comply with the requirements of Section 27-391 of article nine of subchapter six of chapter 1 of title 27 of the administrative code.

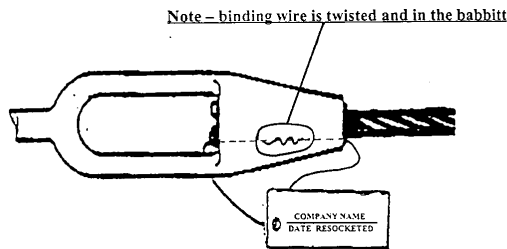
§143 Add new appendix k to such standard.

APPENDIX K0

TAGS



NOT APPROVED



APPROVED METHOD

† *DOB 1-16-03; 11-91 BCR*

***REFERENCE STANDARD RS 18-3**

ANSI B153.1-1981 Safety Requirements for the Construction, Care and Use of Automobile Lifts.

FS 00-L-360D-1987 Motor Vehicle Lifts.

**DOB 1-16-03; 11-91 BCR; 678-85 BCR; 385-82 BCR*

*****REFERENCE STANDARD RS 18-4**

ANSI/ASME MH 14.1-1987 Loading Dock Levelers and Dockboards.

Modifications.-The provisions of ANSI/ASME MH 14.1-1987 shall be subject to the following modifications: The Section numbers are from that standard:

2.1.8 Lighting.-The entire operating area shall be illuminated to provide a distributed intensity of at least five (5) foot candles over the area of operating floor and platforms.

****11-91 BCR; 1156-80 BCR*

****REFERENCE STANDARD RS 18-5**

ANSI/ASME B20.1- 1987 Safety Standards for Conveyors and Related Equipment.

Modifications.- The provisions of ANSI/ASME B20.1-1987 shall be subject to the following modifications. The Section numbers are from that standard:

6.21 Vertical Reciprocating Conveyers

6.21.2 Guarding

(e) Controls shall be installed or located so they cannot be actuated by a person on the carrier. Controls shall be of constant pressure type.

(f) Non-operating sides of the conveyer to be guarded to a minimum height of 7 ft. If guarding is fence or expanded metal the mesh must be capable of rejecting a 2" diameter ball. The guarding is required at both levels where the unit penetrates a non-fire rated floor.

6.21.3 Shaft enclosure

Where a vertical conveyer (material lift) penetrates a fire-rated floor a two (2) hour rated enclosure with one and a half (1½) hour rated self-closing fire doors shall be required.

6.21.4 Gates

(a) All lower and intermediate level manual loading and unloading points shall have gates with a minimum of six (6) ft in height. Each gate is equipped with a lock and electric contact to prevent the gates from being opened until the conveyer is at that level.

(b) Upper level gates must be with a minimum of six (6) ft in height and shall be equipped with a lock and electric contact.

6.21.5 Platform Side guards

Platform side guards and gate with electric contact shall be provided with a minimum of six (6) ft in height.

6.21.6 Limitation of Load

The capacity shall be not less than 50 lbs. per sq. ft with a maximum capacity of 2500 lbs.

6.21.7 Speed

The rated speed shall not exceed 25 ft/min (0.15 m/s).

6.21.8 Travel

The maximum travel shall not exceed 25 ft.

6.21.9 Floor Penetration

Not more than one floor penetration shall be permitted.

SECTION 7 OPENING PROTECTION

[7.01] 7.1 Passage through openings

[7.01.1] 7.1.1 Whenever a conveyer or other material-handling device is designed to pass through floors, ceilings, partitions or walls, the plans and specifications shall give the necessary details of the opening protection with respect to location, structural strength, and fire resistance in accordance with the requirements of the Building Code.

Section 5. This revision shall take effect immediately.

[] Matter shown in brackets to be deleted.

— Matter shown underlined to be added.

{ } Matter shown in brackets replaces brackets

[] of ANSI/ASME A17.1-1996 and ANSI/ASME 17.1A-1997, so that it is not understood as deletion.

Designations used in this revision is as follows:

Example is taken from PART X	
PART	X
SECTION	SECTION 1000
RULE	RULE 1000.3
SUBDIVISION	1000.3(b)
PARAGRAPH	1000.3(b)(1)

Reference Standard 18

SUBPARAGRAPH	1000.3(b)(1)(b)
ITEM	1000.3(b)(1)(b)(1)
SUBITEM	1000.3(b)(1)(b)(1)(i)

Wherever "of such rule," "of such subdivision," etc., is used in any §#, they refer to "rule," "subdivision," etc. of the preceding §#.

** *DOB 1-16-03;11-91 BCR; 1156-80 BCR*

REFERENCE STANDARD RS 18-6

CONSOLE OR STAGE LIFTS

1. Platform or Car Construction.-

(a) Suspension or supporting frames of all console or stage lifts shall be constructed of structural steel, wrought iron shapes, or of any noncombustible material whose strength shall satisfy the loads and stresses requirements of the building code.

(b) The minimum factor of safety of all materials used in car platforms and slings shall conform to the requirements of reference standard RS 18-1.

2. Cables.-Hoisting cables shall have a safety factor conforming to the requirements of reference standard RS 18-1.

3 Hoisting.-Platforms may be operated by cables, plunger, or screw type equipment, and shall maintain a minimum factor of safety of all materials used in operating the platform conforming to the requirements of reference standard RS 18-1.

4. Control.-

(a) Up and down control shall be provided near the lift in a location where it can be easily operated and where the operator will have an unobstructed view of the lift.

(b) An emergency stop switch shall be provided within easy reach of the operator, and when operated, it shall cut off power from the hoisting equipment.

5. Entrance.-When the entrance to such console or stage lift is at one or more points below the stage level, such entrance or entrances shall be provided with a gate or door with mechanical lock and electric contact, or the platform shall be provided with an apron made of sheet steel or plywood covered with 26 gage sheet steel, at the entrance side or sides extending from the platform to below the lowest landing with the platform at its maximum raised position. If the platform rises above the stage level, all unguarded sides shall be provided with aprons extending from the platform to below the stage level.

*REFERENCE STANDARD RS 18-7

ANSI A 10.-41981-Safety requirements for Personnel Hoists. Modifications.-The provisions of ANSI A 10.4-1981 shall be subject to the following modifications:

Add the following sub-section to 25.10.2:

25.10.2.1 Thereafter the rack and pinion type personnel hoist shall be reinspected every ninety (90) days. The inspection

shall include a full load test of the safety device.

Add the following sections to govern the installation, jumping and dismantling of rack and pinion type personnel hoists to Rule 26, Inspections and Tests of Personnel Hoists:

26.1.1.1 Installations of rack and pinion type personnel hoists shall be approved by the Elevator Division. Both a construction application and an elevator application shall be filed by a licensed professional engineer or registered architect. The drawings shall be sealed.

26.1.1.2 The Elevator Division shall be notified at least three (3) days before the inspection date prior to each "cathead" raise, when the travel of the hoist is increased. This inspection shall include the examination of the normal, terminal and final limit stopping devices. All parts of the equipment shall be inspected; and tested to determine that they are in safe operating condition where found necessary by the Elevator Division. A full load test may not be required at this time by the Elevator Division. If an Elevator Division Inspector cannot be present at the time the required tests are made, the qualified private elevator inspectional agency conducting the tests shall:

(1) Submit a statement upon a department form to the Elevator Division certifying the tests which have been conducted and the results thereof within 24 hours of such tests.

(2) Attach a tag showing the date of the tests and the name of the person and/or agency conducting it.

26.1.3.1 Acceptance inspections of new installations shall be made prior to use by the contractor. The Elevator Division shall be notified at least three (3) days before the required acceptance inspection and test. A full rated load test shall be made. All shaftway protection doors, ramps, guards and required safety devices shall be installed and in place. The contractor may apply upon successful completion of the inspection and test for a ninety (90) day temporary elevator certificate (B Form 256).

26.2.1.1.1 All rack and pinion type safeties shall be stamped with their expiration date by the manufacturer and shall be replaced when such date is expired which shall not exceed a period of three (3) years.

26.7 Materials Handling Plan. A materials handling plan shall be provided if a potentially hazardous condition exists because of simultaneous operation of the rack and pinion personnel hoist and either a crane and/or derrick.

26.7.1 The materials handling plan shall be acceptable to Site Safety Coordinator and approved by the Department.

26.7.2 The hoist contractor and the safety coordinator shall be jointly responsible for the enforcement of the provisions of the materials handling plan.

26.8 Dismantling and Removal. The Elevator Division shall be notified on department forms when a rack and pinion type hoist is dismantled and removed.

26.8.1 The notification shall include the elevator application number, the street address locations listed on the construction application, the block and lots and the date of removal.

Reference Standard 18

26.9 Field Inspection. A department field inspection will be scheduled by the Elevator Division upon receipt of proper notification to ascertain the actual job-site conditions and to sign-off the forms documenting the same.

Add the following to Rule 30:

Electrical work shall conform to the New York City Electrical Code.

Welding shall conform to the applicable portions of the Administrative (Building) Code.

**678-85BCR*

REFERENCE STANDARD RS 18-8 POWER OPERATED SCAFFOLDS

1. Construction Requirements for the Scaffold.-

(a) The scaffold shall be constructed of steel conforming to reference standard RS 18-1, rules 203.6(a), (b), (c), and 203.7, or of equivalent metals.

(b) A railing with an intermediate horizontal rail, shall be provided on all four sides of a scaffold. The railing shall be at least 36 in. high on the building side and at least 42 in. high on the other three sides. Design of the guard rail at or near both ends of the scaffold shall include provisions for mounting roller guides.

(c) The spaces between the top guard rails and the scaffold toe board on the outside railing and the end railings shall be filled with metallic mesh, expanded metal, or similar material that shall reject a ball 1 in. in diameter and that shall be capable of withstanding a horizontal force of 75 lbs. at any point with a maximum deflection of 1 in. The railing on the building side shall have mesh below the intermediate rail only.

(d) A solid metal toe board, at least 4 in. high, shall be provided at the floor on all four sides. The bottom of the toe board shall be flush with floor. The toe board shall be capable of withstanding a horizontal force of 75 lbs. at any point with a maximum deflection of 1 in.

(e) A hinged access gate shall be provided in the scaffold railing on the building side. The gate shall be of construction similar to the railing, and the open spaces in the gate shall be filled with material as prescribed in (c) above. With the gate open, the clear width of access shall be at least 18 in.

(f) The gate shall be provided with an interlock that will prevent power operation of the scaffold when the gate is in the open position.

(g) The scaffold dimension parallel with building shall be designated the "length," and shall be measured between the inside surface of the end railings. The dimension perpendicular to the building wall shall be designated the "width," and shall be measured between the inside railing surfaces on the long sides of scaffold. The width of a scaffold shall be at least 28 in. When the building side of the scaffold is of irregular shape, following the contour of a building wall, scaffold "width" shall be measured at the tightest point of the irregularity.

(h) The rated load of a scaffold shall be 50 plf. The maximum number of occupants permitted simultaneously on a scaffold shall be equal to the inside clear length divided

by 5.

(i) The maximum permissible vertical scaffold speed shall be 50 fpm.

(j) The scaffold floor shall have an anti-slip surface with air passage interstices, which must reject a 1/2 in. diameter ball, and shall be designed for a uniform live load of 75 psf. The floor and its supports and bracings shall be able to withstand a concentrated load of 300 lbs. on any random 4 sq. in. of floor area with a maximum deflection of 1/1666 of the span.

(k) A manufacturer's rating plate shall be mounted conspicuously near the access gate on the scaffold. The plate shall be made of non-corrosive material with letters at least 1/4 in. high etched, stamped, or cast on the surface. It shall state the rated load, the maximum number of occupants, and the manufacturer's name and model number.

2. Construction and Design Requirements for Roof Carriage.-

(a) A movable roof carriage and track system shall be provided to move the scaffold in a horizontal direction. The maximum permissible horizontal speed of the roof carriage shall be 50 fpm.

(b) The roof carriage shall be constructed of steel conforming to reference standard RS 18-1, rules 203.6(a), (b), and (c), and 207.7, or of equivalent metals, welded, riveted, or bolted together. The roof carriage construction shall be capable of supporting the scaffold and its rated load plus impact loads imposed by motor stall torque and wind forces with a safety factor conforming to reference standard RS 18-1, rules 203.10 and 203.11.

(c) The design of the roof carriage, track, and track support system shall include means to accurately stop and position the roof carriage at predetermined locations that correspond to the locations of the vertical guides on the building wall.

(d) When the roof track system is not a continuous loop and terminal track ends exist, mechanical end barricades shall be provided together with terminal limit switches.

(e) In the design of roof components of buildings where suspended scaffolds and movable roof carriages are to be used, all forces transmitted to the building structure by such equipment shall be added to normal design loads.

3. Stability of Roof Carriage.-The roof carriage and its support system shall be designed and constructed for structural adequacy and required stability to resist overturning moments occurring with a scaffold carrying its full rated load.

(a) Windforce: 30 psf.

(b) All imposing forces that are caused by moving loads shall be doubled for impact.

(c) If the roof carriage is of open structure type, the effect of windforce or interior components shall be considered as the sum of all framing components areas plus mounted equipment areas projected on a plane perpendicular to the wind direction. No component shall be considered as shielding another component along the wind direction if the separating distance is more than 4 times the smallest

Reference Standard 18

dimension of the windward component.

4. Access for Inspection and Maintenance.-Safe and convenient means of access between roof and roof carriage and between roof carriage and scaffold shall be provided, conforming where applicable to reference standard RS 18-1, rule 101.3.

(a) On installations where movable roof carriages are used, the means of access shall be a permanent part of the carriage design and shall be constructed so as to permit stepping on or off the carriage to or from the roof at any carriage position.

(b) Means of access between a movable roof carriage and its scaffold shall be possible only with the scaffold raised to its top position. Electrical interlocks in the carriage drive motor circuit, and actuated by the scaffold, shall prevent carriage movements until scaffold is in access position.

5. Vertical Guiding of Power Operated Scaffolds.-

(a) Power operated scaffolds shall be guided up and down the face (facade) of a building or structure.

(b) The guiding means shall consist of roller guide shoes engaging vertical guide rails securely attached to the structural members.

(c) Each vertical guide shall be engaged by an upper and a lower roller guide shoe securely attached to the scaffold and its suspension frame. Roller guide shoes shall be spaced at least 48 in. apart vertically. Where the platform is suspended at two points at each end, the vertical guides may be engaged by one guide shoe only.

(d) The two ends of the scaffold shall be supported and hoisted or lowered simultaneously, and means shall be provided to maintain the scaffold approximately at level position at all times to prevent the roller guide shoes from binding on the vertical guides. Out-of-level slope shall not exceed 1/4 in. in 12 in.

(e) Materials for vertical guides, suspension frame, and fastenings shall conform to applicable portions of reference standard RS 18-1, section 200.

6. Construction and Design Requirements for Hoist Machines.-

(a) A hoist machine, whether mounted on the scaffold or the roof carriage, shall be designed and constructed to maintain its component parts in correct alignment to effectively transmit the imposed drum load into the supporting structure.

(b) Wire ropes shall lead from the drums through suitable fairleads to suspension points when the hoist machine is mounted on the scaffold. Wire ropes shall lead from the drums over suitable deflecting sheaves mounted on outriggers from the roof carriage when the hoist machine is located in the roof car.

(c) Chains, clutches, or friction gearing belts shall not be used to connect the drive motor to the winding drum. It shall be necessary to power drive the drive machine to either raise or lower the scaffold.

(d) Drive motors shall meet the requirements of the electrical

code of the city of New York and shall:

(1) Lift the scaffold with 125 percent of the rated load at the rated speed with maximum temperature rise of 50 degrees C. per hr.

(2) Provide dynamic braking.

(3) Be of weatherproof construction with the motor shaft connected to the input shaft of the speed reducer through a coupling capable of transmitting the motor stall torque.

(e) Guards.-All moving, power transmitting, and interacting components of the drive machines shall be effectively guarded to conform to applicable portions of the requirements of rule 19 of the industrial code of the state of New York.

(f) Brakes.-Each hoist machine shall be provided with at least two friction brakes applied by a spring or springs and released electrically.

(1) Each brake shall be able to stop and hold the dead weight of the scaffold and 125 percent of the rated load.

(2) The drum brake shall be adjusted to apply not later than 2 seconds after the drive motor brake at every stopping operation.

(3) At least one brake shall be located at, and applied directly to, the winding drum or an equal strength extension of it. This brake shall have the additional function of reacting to a 40 percent over-speed actuated by an inertia device or a speed governor, either of which must be reset manually.

(4) The second brake shall be located at, and applied on either side of the motor.

(5) All parts of the brakes shall be readily accessible for inspection and cleaning.

(g) Gearing.-Hoist machines shall be provided with speed reducers between the drive motor and the rope drum. Such speed reducers shall be of the meshing gear type, worm and worm gear type, spur gears type, bevel gears type, or a combination of these types. The speed reducer shall be fully enclosed, adequately lubricated, and sealed to prevent leakage.

(1) Such speed reducers shall conform to the requirements of the American Gear Manufacturers Association as listed in Reference Standard RS 18-1, Part XVI.

(2) Material used for gears and shafts in speed reducers shall conform to reference standard RS 18-1, Section 208.

**1156-80 BCR*

(3) The gearbox shall be provided with oil level indicators and removable cover plates or plugs to permit visual inspection of the full width of the faces of the gear teeth.

(4) A data plate of a material resistant to weather and other corrosive agents shall be mounted on the gearbox, and shall bear the following information etched or stamped in 1/8 in. high letters:

Mechanical horsepower.....

Input speed.....R.P.M.

Output speed.....R.P.M.

Service factor.....

Type of lubricant.....

Quantity of lubricant.....Gallons

(h) Drums.-Drums for winding up suspension ropes shall have grooves or contact surfaces capable of withstanding the imposed rope pressure without deformation.

Reference Standard 18

(1) The pitch diameter of the drum shall be at least 40 times the diameter of the rope wound on it.

(2) When grooved drums are used and single or multiple layers of rope are wound on the drum, the groove spacing or distance from centerline-to-centerline of adjacent grooves shall be at least 1/16 in. plus the rope diameter.

(3) When a drum without grooves is used and single or multiple rope laying is employed, a level winding device shall be provided to maintain the rope in close wound, parallel lays.

7. Suspension Means and Their Attachment.-Scaffolds shall be suspended by steel wire ropes, with at least one rope supporting the scaffold at, or near, each end. When winding drums are located at the top of travel, the suspension rope fastenings shall be attached to the scaffold; when winding drums are located on the scaffold, the suspension rope fastenings shall be attached to supports at the top of travel; and when a hoist machine with a continuously rotating traction sheave is used at each end of the scaffold, the single suspension rope shall have at least 4 turns on the sheave for minimum lifting effect, and the rope length shall be equal to the total scaffold travel plus 8 ft. For each suspension rope, an adjacent safety suspension rope shall be provided. The safety suspension rope shall normally run free through a clamping device, that is part of the machine, and the clamping device shall be arranged to automatically grasp and hold the safety rope upon failure of the hoist rope.

(a) Only steel wire ropes with fiber cores, having the commercial classification "elevator wire rope" and of minimum grade "improved plow steel" shall be used for the suspension of scaffolds.

(b) Rope data tag information shall conform to the requirement of reference standard RS 18-1, rule 212.2b.

(c) The number of suspension ropes used, the diameter of the ropes, and the factor of safety shall conform to requirements of reference standard RS 18-1, rule 212.3.

(d) The minimum rope diameter shall be 5/16 in.

(e) Securing of wire rope to winding drums shall conform to requirements of reference standard RS 18-1, rule 212.6.

(f) At least 3 turns of rope shall remain on the winding drum when the scaffold is at the bottom of travel.

(g) Suspension wire ropes shall not be lengthened or repaired by splicing.

(h) Suspension wire rope fastenings at free ends shall conform to the requirements of reference standard RS 18-1, rules 212.9(a), (b), (c), (d), (e), and (f).

(i) Suspension ropes shall be provided with a rust-resistive coating.

(j) Reverse bends in the roping arrangement should be avoided. More than two reverse bends in each rope shall be prohibited.

(k) Means shall be provided to stabilize the suspension ropes to prevent sway and abrasion and, in all cases, such means shall be provided for every 300 ft. of scaffold travel.

8. Operating Devices and Control Equipment.-

(a) All electrical operating devices shall be of the constant

pressure or dead man type with weather proof enclosure. To prevent unauthorized use, the constant pressure device shall be key operated or protected by a padlock cover.

(b) All electrical equipment and wiring shall conform to the requirements of the electrical code of the city of New York.

(c) The normal operating devices for the vertical movement of the scaffold shall be located on the scaffold and shall be operable only when all electrical protective devices and interlocks on the scaffold are in position for normal service.

(d) The operating device of a power operated roof carriage for horizontal traversing shall be located on the roof carriage. This operating device shall be connected so that it will not be operable until the scaffold is raised to its uppermost position of travel and is disengaged from the building face or guiding rails on the building face and all protective devices and interlocks, on both the roof carriage or scaffold mounted hoist machine, are in position for traversing.

9. Traveling Cable.-

(a) Conductors for control, power, communication, signal, and ground may be run in a single traveling cable, provided that the cable conforms to the requirements of rule B30-166.0(i) of the electrical code of the city of New York.

(b) Traveling cables exceeding 100 ft. in length shall comply with rule B30-69.0 of the electrical code of the city of New York.

(c) The traveling cable shall be provided with a tensioning device to prevent uncontrolled cable sway, to protect the cable against abrasion, and to automatically prevent overtensioning of the cable. The tensioning device and cable drum shall be mounted in a weatherproof housing.

10. Electrical Protective Devices and Interlocks.-

(a) An overtensioning or tightrope device shall be connected into the drive motor circuit in a manner that will cause it to react to an overload and disconnect electric power to prevent upward pull on ropes if the scaffold becomes wedged in its tracks or is otherwise impeded while being raised.

(b) A slack rope device shall be provided that will react to a slackening of rope tension and disconnect electric power from drive motor to prevent the drum from overhauling the suspension rope if scaffold's downward motion is interrupted.

(c) Limit switches shall be provided at the top and bottom terminals of scaffold travel and shall be connected into the control circuits of the drive motors and actuated by cams at both ends of the scaffold and the roof carriage. Cam engagement of a limit switch at any travel terminal shall remove electric power from the motor circuit, and shall apply the brake to stop the scaffold or roof carriage.

(d) Hoist machine winding drums shall be provided with stop motion limit switches of the traveling nut type or equivalent. Such stop motion limit switches shall be connected to the drum shaft and set to open the operating circuit of the motors simultaneously with the cam operated

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final terminal travel limit switches.

(e) All electrical mounting boxes, conduits, piping, and junction boxes, and the controller frame, hoist machinery frame, roof carriage track system, and scaffold shall have a ground connection through a ground wire in the scaffold traveling cable and by a third rail contact or cable with a tensioning device for the roof carriage.

11. Power Supply System.-Electrical equipment and wiring for the power supply system shall conform to the applicable requirements of the electrical code of the city of New York.

12. Emergency Communication with Men on Scaffold.-Communication equipment shall be provided for each power operated scaffold to facilitate rescue operations in an emergency and shall consist of either:

(a) A telephone instrument mounted on the scaffold and connected through wires in the traveling cable to a manned instrument in the building and, in addition, a battery or hand operated air horn or other signalling device not requiring electricity to operate.

(b) A two-way radio telephone system with the receiving instrument in the building constantly manned during the operation of the scaffold and in addition, a battery or hand operated air born or other signalling device not requiring electricity to operate.

13. Special Maintenance.-

(a) Suspension ropes shall be examined, lubricated, and shackled or reshackled to conform to ANSI A17.2-1979

(b) Control mechanisms, switch panels, relay panels, and similar electrical operating equipment shall be examined and maintained to conform to ANSI A17.2-1979

(c) A continuous record of modifications and changes of equipment shall be kept on the premises for inspection and review by the commissioner.

(d) A complete and continuous record of operations shall be maintained, in which shall be recorded, regular maintenance procedures, and malfunctions, repairs, and emergencies.

**1156-80 BCR*

****REFERENCE STANDARD RS 18-9**

ANSI/ASME A90.1 1985-Safety Standards for Belt Manlifts.

***Local Law 65-1969; 11-91BCR; 1156-80BCR*

*****REFERENCE STANDARD RS 18-10 AMUSEMENT DEVICES**

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TEXT

PART I GENERAL PROVISIONS

*1.0 PURPOSE, INTENT AND GENERAL REQUIREMENTS.

The purpose of this Reference Standard is to supplement the provisions of Subchapter 18 of Chapter 1, Title 27 of the Administrative Code of the City of New York "(Code)," entitled Elevators and Conveyors pertaining to the inspectional and test requirements for amusement devices and to establish the minimum safety requirements for, and control of the design, construction, installation, alteration, maintenance and operation.

***2.0 SCOPE AND APPLICATION.** These Reference Standards shall be applicable to all amusement devices operated within the City of New York whether located on a permanent, temporary, or mobile foundation. See Section 643 of the New York City Charter.

2.1 This Standard shall not apply to:

2.1.1 Any single passenger manually, mechanically or electrically operated, coin-operated device which is customarily placed, singly or in groups, in a public location and which does not normally require the supervision or services of an operator; and

2.1.2 Locomotives weighing more than seven tons, operating on track the length of which is 0 mile or greater, the gage of which is three feet or greater, and the weight is at 60 pounds per yard; and

2.1.3 Mobile type devices, self-contained and mounted on a motor vehicle or trailer not requiring further assembly or support, shall not be subject to this standard.

***3.0 DEFINITIONS.** These definitions are in addition to those set forth in the Code §27-232.

***3.1 ACCIDENT.** See Code §27-1006. An injury to any person requiring the services of a physician or damage to property or to apparatus exceeding \$100.

***3.2 AMUSEMENT DEVICE.** A mechanically operated device or structure, open to the public, used to convey persons in any direction as a form of amusement. For the purpose of these reference standards, the word mechanically shall read mechanically and/or electrically operated.

3.3 AMUSEMENT DEVICE FOR CHILDREN. An amusement device designed for children twelve years of age and under.

3.4 CHILD. A person 12 years of age and under.

3.5 CONTAINING DEVICE. A strap, belt, bar, gate or other safety device designed to prevent accidental or inadvertent dislodgement of a passenger from a device but which does not actually provide physical support.

3.6 DEVICE OPERATOR. Any person or persons actually engaged in or directly controlling the operations of an amusement device.

3.7 GUARDIAN. A person 16 years of age and over.

3.8 GUARDIAN RESTRICTION. A condition placed on an amusement device where a passenger must be accompanied on the device by a guardian.

3.9 HEIGHT RESTRICTION. A statute requirement for passengers to be permitted on a specific amusement device which is contained on the list of height restrictions maintained by the Commissioner in accordance with subsection 4.6 of this Standard.

3.10 NATIONALLY RECOGNIZED TESTING AGENCY. A laboratory, such as the Underwriters Laboratories, Inc., or the Factory Mutual Engineering Corporation or any similar testing organization acceptable to the Commissioner.

***3.11 NON-DESTRUCTIVE TESTING.** A general term used to identify inspection methods that permit evaluation of welds, structural members and joints without destroying their usefulness.

***3.12 OPERATOR.** A competent individual designated by the owner, who shall be at least 18 years old, free from serious physical or mental defects, selected with consideration of his abilities to perform his duties on an amusement device, in a careful and competent manner, who has met the requirements for a Certificate of Competency set forth under Policy and Procedure Notice #3 of 1993 in accordance with Code §27-1005.

***3.13 OWNER.** A person having legal title to the premises; a mortgagee or vendee in possession; a trustee in bankruptcy; a receiver or any other person having legal ownership or control of premises. For the purpose of these reference standards, the word premises shall read premises and/or amusement device.

***3.13.1 OWNER.** Also the person who manages the operations of the amusement device.

***3.14 PASSENGER TRAMWAY.** A device used to transport passengers in cars on tracks or suspended in the air, by use of steel cables, chains or belts or by ropes, and usually supported by trestles or towers with one or more spans.

***3.15 PERMANENT.** Lasting for a period of time exceeding two (2) weeks.

***3.16 PORTABLE.** Devices which by mounting on a motor vehicle or trailer are made mobile and which require additional assembly or support for operation. Their usage may be permanent or temporary.

***3.17 RESTRAINING DEVICE.** A safety belt, harness, chair, bar or other device which affords actual physical support, retention or restraint to the passenger of an amusement device.

***3.18 SHALL.** A mandatory requirement.

***3.19 STRUCTURE.** An assembly of materials forming a construction for occupancy or use, including among others: buildings, stadia, tents, reviewing stands, platforms, stagings, observation towers, radio towers, tanks, trestles, open sheds, coal pockets, shelters, fences and display signs.

***3.20 TEMPORARY.** Lasting for a period of time not to exceed two (2) weeks.

***4.0 COMPLIANCE.** Every owner, device operator and the public using an amusement device shall comply with or effect compliance with all provisions of applicable sections of the New York City Administrative Code and these reference standards.

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*4.1 An amusement device which is not in compliance with these reference standards shall not be used or occupied, except as provided in 4.2.

*4.2 Where only individual units or a device, such as cars, seats or other carriers are defective and not in compliance with these reference standards, such units shall be taken out of service and clearly marked with a sign reading Out of Service provided however, such defects do not jeopardize the safety of the entire device.

4.3 The owner of an amusement device shall not permit a person who in the judgement of the operator of the ride appears to be under the influence of alcohol or narcotics to enter any amusement device.

4.4 The Commissioner shall classify all amusement devices either an "Amusement Device" or as an "Amusement Device for Children."

4.5 The Commissioner shall reserve the right to establish the height restriction, guardian restriction, and classification of any device.

4.6 The Commissioner in accordance with subsection 4.5 of this section shall maintain a list of approved heights for children 12 years of age and under for specific amusement devices other than those designed for them.

4.7 The owner of an amusement device shall not permit a passenger under the approved height on such list; or

4.7.1 The passenger being a child not meeting the approved height restriction, is accompanied, elbow to elbow or front to back on the ride by a guardian.

*5.0 PERIODIC INSPECTION AND TEST INTERVALS. Every new and existing amusement device shall be inspected and tested in accordance with the provision of Code §27-998.

5.0.1 An amusement device may be used and operated for a period not to exceed six (6) months from the date of the last satisfactory periodic inspection and test, unless otherwise noted. The Commissioner may extend the periodic inspection and test for an additional two (2) months for amusement devices located in premises which are seasonably operated.

5.0.1.1 An amusement device which has been assembled and disassembled shall be inspected and tested as required by the Department after reassembly prior to its use and operation, regardless of the date of the previous inspection and tests. However, for portable devices, a prior load test inspection certificate from a cognizant state or city agency coupled with an affidavit that the test set-up is representative of the permitted operating conditions at the site based on said test may be accepted. The affidavit shall also state that all of the work necessary to retain it in the same structural situation has been performed.

5.0.1.2 An amusement device which has been altered, based upon an approved application and permit issued by the department, shall be inspected and tested.

5.0.1.3 An amusement device which has been relocated shall be inspected and tested after each relocation, as required by the department, prior to its use and operation, regardless of the date of the previous inspection and tests. However, for portable devices, a prior load test inspection certificate from a cognizant state or city agency coupled with an affidavit that

the test set-up is representative of the permitted operating conditions at the site based on said test, may be accepted. The affidavit shall also state that all of the work necessary to retain it in the same structural situation has been performed.

5.0.1.4 An amusement device shall be inspected and tested, regardless of the date of the previous inspection and tests, when there are reasonable grounds to believe that such tests are necessary to assure safety and the commissioner or his representative orders such tests to be made.

*5.0.1.5 All permanent amusement devices requiring a load test and which operate seasonally for less than nine months shall require two field inspections by authorized representatives of the Department. The first inspection shall take place prior to the opening day of the amusement device and the second inspection shall take place no sooner than 90 days nor later than 120 days from the first inspection.

5.0.2 Notification of the proposed date of the regular periodic inspection and test shall be made to the department at least one week prior to the scheduled date by the owner of the amusement device or by the person or firm conducting the inspection and test.

*5.0.3 Refer to Code §26-213c for required fees for inspection and tests, and for permits to use and operate amusement devices.

*5.1 INSPECTION AND TEST REQUIREMENTS. Every new and altered, rebuilt or modified amusement device shall be subjected to inspection and test requirements in accordance with the provisions of Code §27-999(c) and these reference standards.

5.1.1 Such inspections and tests shall be conducted by the person or firm installing, assembling, altering or relocating the amusement device and shall be witnessed by an authorized representative of the commissioner.

5.1.2 The results of the inspection and test for each amusement device shall be filed together with the required fee with the department by the person or firm conducting the inspection and tests. All such reports shall contain the following:

*5.1.2.1 The name, address and signature of the person conducting the inspection and test. All applications, plans, reports which are required to be submitted by a licensed Professional Engineer ("PE") or Registered Architect ("RA") shall be signed and sealed.

5.1.2.2 Trade or descriptive name of the amusement device and model number, if any, together with any identifying numbers.

5.1.2.3 The name and address of the manufacturer.

5.1.2.4 The date of the inspection and tests.

5.1.2.5 The maximum safe number of passengers and the maximum safe speed.

5.1.2.6 The results of the inspection and tests and a statement whether the results indicate confirmation as to the adequacy of the amusement device.

5.1.2.7 The results of the air compressor tank test and a statement whether the results indicate compliance.

* 5.1.2.8 There shall be kept with all permanent amusement

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devices requiring a load test, a maintenance or operational manual containing the recommended foundations. If the manual does not contain the required foundations, then a plan and design of the footings prepared by a PE or RA licensed in the State of New York shall be prepared and retained with the device. Said plan shall indicate the size and pressure under the footings and allowable soil bearing capacity. In the case of existing permanent amusement devices with a device number issued by the Department of Buildings, compliance with this requirement will be delayed until March 1, 1997, provided an affidavit is submitted by the owner of the amusement device to the Department prior to June 30, 1996 indicating the name of the PE or RA retained to prepare the plans.

* 5.1.2.9 For the installation of temporary amusement devices requiring a load test, the owner of the amusement device shall submit the proposed foundations as recommended in the maintenance or operational manual of the amusement device to the Department of Consumer Affairs together with any amusement device license application. If the manual does not contain the proposed footings for varying underlying conditions, a plan and design of the footings shall be submitted to the Department of Consumer Affairs prepared by a PE or RA licensed in the State of New York. The plan shall indicate the size and pressure under the footings and allowable soil bearing capacities and a copy shall be kept with the amusement device. A valid New York State "Permit to Operate an Amusement Device" may be submitted in lieu of the above.

*5.1.2.10 The name and signature of the authorized representative of the commissioner who has witnessed the inspection and tests.

*5.2.1 OPERATION, MAINTENANCE, INSPECTION AND TEST RECORDS Effective March 15 1997, the owner shall retain on-site for the preceding one year, current operation maintenance inspection and test records for each amusement device which is available to and acceptable to the Commissioner. Such records shall be kept up to-date at all times.

*5.2.1.1 All operations, maintenance, inspection and tests shall be performed in accordance with the manufacturer's manuals. Where such manuals are not available a PE or RA licensed in any jurisdiction acceptable to the Commissioner shall determine the necessary operation, maintenance, inspections and tests. Such manuals shall be prepared in accordance with ASTM F770-88, F846-92 AND F853-91. In the case of existing permanent amusement devices with a device number issued by the Department of Buildings, compliance with this requirement will be delayed until March 1, 1997 provided an affidavit is submitted by the owner of the amusement device to the Department prior to June 30, 1996 indicating the name of the PE or RA retained to prepare the manuals.

*5.2.1.2 For temporary amusement devices the owner shall submit to the Department of Consumer Affairs, together with the amusement device license application, an affidavit in a form acceptable to the Commissioner that all necessary operation, maintenance, inspection and tests required by the

manufacturer or the PE or RA pursuant to Section 5.2.1.1 have been performed for three (3) months prior to its present location. The affidavit shall contain the locations and dates of operation, maintenance, inspection and tests for the required 3 month period.

5.2.2 These records shall contain the following information:

* 5.2.2.1 Date and nature of all inspections whether by the Department or the owner.

5.2.2.2 Any violation and type of action taken to rectify the violation.

*5.3 NONDESTRUCTIVE TESTING FOR PERMANENT DEVICES REQUIRING A LOAD TEST.

* 5.3.1 All permanent amusement devices requiring load tests shall be inspected annually prior to the start of the season by nondestructive methods by a laboratory under the supervision of a PE or RA licensed in the State of New York or by authorized representatives of the manufacturer. The tests shall be performed in accordance with ASTM 3.03 (1995) Standards for Nondestructive Testing.

* 5.3.1.1 All personnel performing nondestructive tests shall be qualified by experience, education and examination in accordance with ASNT December 1992. SNT-TC-1A for Level II.

* 5.3.1.2 Prior to performing any tests the entire amusement device and supporting structure shall be visually inspected. The inspection of the amusement device shall be in the disassembled configuration where possible, in order to be able to inspect critical areas which cannot be seen or reached in the assembled configuration.

* 5.3.1.3 The parts of the amusement device and supporting structure subject to nondestructive testing shall be as recommended by the manufacturer. Where the manufacturer's recommendations are not available a PE or RA shall determine the parts of the amusement device and supporting structure which shall be tested in accordance with ASTM F846-92 and shall select the appropriate test method.

* 5.3.1.4 The laboratory or authorized representative of the manufacturer shall submit a test report to the Department of Consumer Affairs together with any amusement device license application and shall identify the ride tested, the Department of Consumer Affairs license number and the location of the tested areas. If the manufacturer or the PE or RA does not recommend any nondestructive testing then an affidavit reflecting such recommendation shall be submitted by the owner with evidence acceptable to the Commissioner of Buildings.

* 5.3.1.5 A weld that fails inspection shall be reported to the Department and shall be repaired by a licensed New York City welder. Where the welding work is not performed in the City of New York, welds shall be made by AWS qualified welders. A part such as a pin, axle or tension strap that fails inspection shall be removed and a new or repaired part shall be used as a replacement. The location of failed joints and parts shall be noted on the report to the Department. No amusement device shall be placed into operation until necessary repairs are made and the repaired parts retested.

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*5.4 NONDESTRUCTIVE TESTING FOR TEMPORARY DEVICES REQUIRING A LOAD TEST.

*5.4.1 The requirements set forth in Section 5.3 shall be applicable to temporary amusement devices

except that all temporary amusement devices requiring load tests shall have had a nondestructive test within one year prior to use of the amusement device in New York City. For temporary rides a valid New York State "Permit to Operate an Amusement Device" may be submitted in lieu of the affidavit referenced in Section 5.2.1.2 as evidence of compliance with nondestructive testing.

*5.4.1.1 In addition, the requirements set forth in Section 5.3 may be met by a licensed PE or RA of

any jurisdiction acceptable to the Commissioner.

*5.5 The Commissioner may waive the requirements of Section 5.3 for a period not to extend beyond December 31, 1996 for existing permanent amusement devices with a device number issued by the Department of Buildings and the manufacturer's manuals are not available.

PART II DESIGN AND CONSTRUCTION

6.0 DESIGN.

6.0.1 All structures used in connection with amusement shall be so designated and constructed as to carry safely all loads to which such structures may normally be subjected.

*6.0.2 All amusement devices shall be designed, constructed and installed so as to withstand any normal stresses to which they may be subjected.

*6.0.3 Before being used by the public, amusement devices shall be so placed or secured with blocking, cribbing, outriggers, guys or other means as to be stable under all operating conditions.

*6.0.4 All amusement devices, such as, but not limited to, passenger tramways, where restoration of electrical power could create a hazard, shall be provided with a main disconnect switch capable of being locked only in the Off position.

*6.0.5 The path of travel of an amusement device shall have a clearance adequate to insure that a passenger on the device cannot be injured by contacting any structural member or other fixed object when the passenger is in the riding position.

*6.0.6 For any new amusement devices manufactured after January 1, 1997, or whenever any additions or alterations are made to any amusement device after January 1, 1997 which changes the structure, mechanism or capacity of any amusement device which requires a load test, a PE or RA shall submit signed and sealed plans of the amusement device to the Department and shall contain design data, safety factors, materials utilized, stress analysis and other pertinent data. The Department's review and acceptance of said plans shall be conveyed by the owner to the Department of Consumer Affairs. The owner shall indicate on its application for an amusement device license whether the device was manufactured or altered after January 1, 1997.

*6.0.6.1 Such stress analysis shall include the affect of

forces generated by acceleration, deceleration, centrifugal action or kinetic or other forces which are constant, reversible or eccentric. Materials and other data pertinent to the design, structure, factors of safety or performance characteristics shall be in accordance with accepted engineering practices, standards and specifications acceptable to the Department, and written in English.

*6.0.6.2 Such plans, dimensioned to scale, shall identify parts and components of amusement devices including, but not limited to the following:

*6.0.6.2.1 Bars

*6.0.6.2.2 Cables

*6.0.6.2.3 Chains

*6.0.6.2.4 Ropes

*6.0.6.2.5 Rods

*6.0.6.2.6 Pipes

*6.0.6.2.7 Girders

*6.0.6.2.8 Braces

*6.0.6.2.9 Fittings

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*6.0.6.2.14 Gears

*6.0.6.2.15 Clutches

*6.0.6.2.16 Speed reducers

*6.0.6.2.17 Welds

*6.0.6.2.18 Bearings

*6.0.6.2.19 Couplings

*6.0.6.2.20 Shaftings

*6.0.6.2.21 Carriers, such as tubs, cars, chairs, gondolas, or seating and carrying apparatus of any description

*6.0.6.2.22 Axles

*6.0.6.2.23 Hangers

*6.0.6.2.24 Pivots

*6.0.6.2.25 Safety bars, belts, harnesses, chains, gates or other restraining, containing, or retaining devices

*6.1 MUSEMENT DEVICE ENTRY AND DISCHARGE.

Safe and adequate means of entry and discharge from each device shall be provided. This safe and adequate means of entry and discharge shall not be construed to means of exits, means of access, means of egress.

6.2 MEANS OF ACCESS AND EGRESS.

*6.2.1 Safe and adequate means of access and egress from amusement devices shall be provided.

*6.2.2 At least two means of egress remote from each other shall be provided from each floor, tier, room or balcony in structures which house amusement devices.

6.2.3 Access to the means of egress shall be marked by readily visible signs in all cases where it is not immediately visible to the passengers.

6.2.4 No means of egress shall be less than 22 inches in width.

6.2.5 The width of a stairway shall be taken as the length of the treads between stringers. The width of a doorway shall be taken as the width of the door.

6.2.6 The maximum travel distance from the most remote

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point in any room or enclosed space to an open safe outside space shall be not greater than that listed below:

6.2.6.1 100 feet in unsprinklered construction,

6.2.6.2 150 feet in sprinklered construction, and

6.2.6.3 25 feet in dead ends.

6.2.7 Means of access and egress shall have protection from adjacent hazards and protection from falling by use of rails, enclosures, barriers or similar means.

6.2.8 Means of access and egress shall be free from debris, obstructions, projections and slipping, tripping and other hazards.

6.2.9 The head clearance in passageways shall not be less than 7 feet.

*6.2.10 Means of access or egress shall have either stairways or ramps and connecting landings or platforms where the public enter or leave an amusement device, that is above or below grade with proper handrails and guards.

6.2.11 Stairways, passageways, ramps, landings or platforms shall be not less than 22 inches in width for single lane passage or 44 inches for double lane passage. Landings or platforms shall not be less than 3 feet long measured in the direction of travel.

*6.2.12 Stair treads shall be at least nine inches deep exclusive of nosing and the height of rise shall not exceed eight inches. Between any two connecting levels the treads shall be of uniform depth and the risers shall be of uniform height. The slope of ramps shall not exceed that required in Code §27-377.

6.2.13 Substantial handrails shall be provided on both sides of all stairways of four or more risers connecting adjoining levels whose difference in elevation is 80 inches or more.

6.2.14 Substantial handrails shall be provided on both sides of landings, platforms or ramps 30 inches or more above grade.

6.2.15 Handrails shall be at least 30 inches above the ramp surface or nose of steps and 42 inches above the landings.

6.2.16 The distance between handrails shall not be less than 18 inches for single lane passage and 36 inches for double lane passage.

6.2.17 Two intermediate rails spaced equally apart or equivalent construction to prevent a passenger from falling through the handrails shall be provided with handrails.

6.2.18 Stairways and ramps requiring handrails in accordance with 6.2.13 or 6.2.14 which are more than 8 feet wide shall be provided with railings dividing the widths into not more than 8 feet and not less than the widths of 6.2.11.

6.2.19 Stairways, landings and ramps shall be designed, constructed and maintained so as to sustain safely a live load of at least 100 pounds per square foot.

*6.2.20 Surfaces in 6.2.19 shall be of non-slip type.

6.2.21 ILLUMINATION. Access to and exits from amusement devices, erected permanently or temporarily, shall be provided with illumination by natural or artificial means of not less than five (5) foot candles measured at grade level.

6.3 EMERGENCY BRAKES AND ANTI-ROLL BACK DEVICES.

*6.3.1 If cars or other components of an amusement device may collide upon failure of normal controls, emergency

brakes sufficient to prevent such collisions shall be provided.
*6.3.2 On devices which make use of inclined tracks, automatic anti-roll back devices shall be installed to prevent backward movement of the passenger-carrying units in case of failure of the propelling mechanism when such backward movement could result in injury to a member of the public.

6.4 SIGNAL SYSTEM.

*6.4.1 Signal systems for the starting and stopping of amusement device shall be provided where the operator of the device does not have a clear view of the point at which passengers are loaded or unloaded.

6.4.2 Any code of signals adopted for the operation of any amusement device shall be printed and kept posted at both the operators and signalman stations. All persons who may use these signals shall be carefully instructed in their use.

6.4.3 Signals for movement or operation of an amusement device shall not be given until all passengers and other persons who may be endangered are in a position of safety.

*6.5 PROTECTION AGAINST MOVING PARTS.

*6.5.1 An amusement device shall not be used or operated while any person is so located as to be endangered by it. Areas in which persons may be so endangered shall be fenced, barricaded or otherwise guarded against public intrusion.

6.5.2 Machinery used in or with an amusement device shall be enclosed, barricaded or otherwise effectively guarded against contact. Guards removed for maintenance purposes shall be replaced before normal operation is resumed. Maintenance shall not be conducted while in public use.

*6.6 SPEED LIMITING DEVICES. An amusement device capable of exceeding its maximum safe operating speed shall be provided with a maximum speed-limiting device which may be either electrical or mechanical.

6.7 PASSENGER-CARRYING DEVICES.

6.7.1 The interior and exterior parts of all passenger-carrying amusement devices with which a passenger may come in contact shall be smooth and rounded, free from sharp, rough or splintered edges and corners, with no protruding studs, bolts, screws or other projections which might cause injury.

*6.7.2 Interior parts upon which a passenger may be forcibly thrown by the action of the device shall be adequately padded.

6.7.3 Amusement devices equipped with a safety bar, cage or other mechanically operated restraining device shall be equipped with a retiring cam or other device so designed that the safety bar, cage or other mechanically operated device cannot be released except at the point of loading or unloading; or alternately that the release device is on the exterior of the conveyance, cab or vehicle and is normally actuated by the amusement device operator.

6.7.4 Amusement devices which are self-powered and which are operated by a passenger shall have the driving mechanism so guarded and the guards so secured in place as to prevent passengers from gaining access to the mechanism.

*6.7.5 Belts, bars, footrests and other equipment as may

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be necessary for safe entrance and exit and for support while the device is in operation shall be provided and maintained in a safe condition. Such equipment and the fastenings shall be of sufficient strength to retain the passengers.

6.7.6 Passenger restraining or containing devices shall be provided and used on any amusement device where centrifugal and other forces or mechanical malfunction could unseat or dislodge a passenger.

*6.7.7 Passenger restraining or containing devices used on tubs, cars, chairs, seats, gondolas and other carriers on an amusement device, where the forces generated by the action of the device require retention, restraint or actual physical support of the passenger shall be designed, constructed, installed, and maintained to support the passenger safely. The fastenings shall be a type which cannot be inadvertently released by the passenger or by an accidental means. Icebox fastenings on a scrambler will not meet this requirement.

6.7.8 Anchorages for the required restraining devices shall have strength at least equal to the strength of the restraining device.

6.8 PASSENGER TRAMWAYS.

6.8.1 The standards prescribed by safety requirements for Aerial Passenger Tramways ANSI B77.1-1982 and supplements B77.1a-86 and B77.1b-88 are adopted as safety standards and shall apply according to the provisions thereof.

6.8.2 Each operator engaged in passenger tramway operations shall protect the public by complying with the standards prescribed in 6.8.1.

6.8.3 Only technical standards relating to public safety are adopted by any incorporation by reference as prescribed in 6.8.1. Other standards relating to administration and reporting procedures are not adopted.

6.8.4 Where any conflict occurs between the standards prescribed in 6.8.1 and these rules, these rules shall prevail.

6.9 ELECTRICAL EQUIPMENT.

6.9.1 All electrical wiring and equipment used for amusement devices or for lighting shall be installed, operated and maintained in accordance with the New York City Electrical Code.

6.9.2 All electrical transformer substations shall be properly enclosed and proper warning signs shall be posted.

6.9.3 Electrical wiring and equipment located outdoors shall be of such quality and so constructed or protected that exposure to weather will not interfere with its normal operation.

6.9.4 Elevated power lines crossing access or other roads within the grounds of a carnival or amusement park shall be so suspended as to provide a vertical clearance of at least 14 feet from the road surface or 3 feet above any vehicle used within the grounds of a carnival or amusement park. A horizontal clearance of at least three feet shall be provided on each side of the normal passage space of vehicles.

6.9.5 All lamps for general illumination shall be protected from accidental contact or breakage. Protection shall be provided by elevation of at least 7

feet from normal working surface or by a suitable fixture or lampholder with a guard.

6.9.6 Each electrically powered amusement device shall be effectively grounded. The grounding shall be made effective as to all non-current carrying metal parts which may become energized and which are exposed to contact by any person.

6.9.7 PROTECTION OF EMPLOYEES. No employees shall be suffered or permitted to work in such proximity to any part of an electric power circuit that he may contact the same in the course of his work unless he is protected against shock by de-energizing the circuit, grounding it, or guarding it by effective insulation. If the protection is supplied by de-energizing the circuit, the switch controlling the circuit shall be locked out to prevent inadvertent closing.

6.10 AIR COMPRESSORS AND EQUIPMENT. Air compressors, air compressor tanks and equipment used in connection therein shall be designed, constructed, equipped and maintained to insure safe operation at all times. They shall be inspected and tested every six months by a qualified person. Air compressor tanks shall be tested to demonstrate that they will sustain a hydrostatic pressure for a period of at least one (1) hour. Such test shall be conducted at the same time as the required periodic inspection and test. A record of each inspection shall be kept and made available to the Commissioner. Air compressor tanks and other air receivers used in connection with air compressors shall have the maximum allowable working pressure conspicuously marked thereon. Refer to Rule 6.11.

6.11 FIRE PREVENTION. The New York City Fire Prevention Code shall be applicable to this section.

6.11.1 Fabrics constituting part of an amusement device shall be flame resistant to meet the following field test: The application of a flame from a three-quarter inch paraffin candle for a period of one minute which does not cause the fabric to flash, nor support combustion, nor continue to flame for more than two seconds or glow for more than thirty seconds after removal of the test flame.

6.11.2 Approved fire extinguishers shall be provided where necessary to secure reasonable and adequate protection from fire hazards.

6.11.3 Flammable waste such as oily rags and other flammable materials shall be placed in covered metal containers which shall be kept in easily accessible locations. Such containers shall not be kept at or near exit.

6.11.4 Gasoline and other flammable liquids and flammable gases when stored shall be kept in reasonably cool and ventilated places. Such liquids shall be in approved containers. Smoking and the carrying of lighted cigars, cigarettes or pipes is prohibited in any area where such liquids or gases are stored or are transferred from one container to another.

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6.12 LOAD TESTS.

6.12.1 No passenger-carrying amusement device of the following types shall be used or put into normal operation until it has withstood an annual load test without failure in any material respect:

6.12.1.1 Devices having suspended passenger seats or spaces;

6.12.1.2 Devices normally operated at speeds or with movements creating severe gravity, inertial or centrifugal forces;

6.12.1.3 Devices so elevated that structural failure is likely to cause passengers to be injured by falling;

6.12.1.4 Devices as to which the commissioner has ordered such a test upon finding it necessary to assure safety.

*6.12.2 Each passenger seat or space shall be weighted with at least 150 pounds dead weight, except that in a device intended only for small children, each seat or space shall be weighted with at least 75 pounds. While so loaded the device shall be operated at maximum normal speed as to test the full operation of all control devices, anti-rollback devices, speed limiting devices, brakes and other equipment provided for safety. The device shall withstand the test without failure in any material respect. The soil and the foundation shall not show signs of inadequacy.

6.12.3 Unless a load test is made in the presence of the Commissioner, the owner of the device shall cause to be filed with the Commissioner a statement by either (1) the manufacturer of the device, or (2) an insurance carrier lawfully doing business in this State and carrying public liability insurance on the device, or (3) a qualified Licensed PE or RA showing whether the device withstood the test without failure in any material respect and setting forth such other relevant information as the Commissioner may require. Until such a statement is so filed it shall be presumed that the device has not withstood the test as required.

6.12.4 A load test complying with 6.12.3 when performed in another jurisdiction shall be deemed acceptable, provided:

6.12.4.1 The statement required by 6.12.3 is substantially equivalent and the information therein is verified by a Licensed PE or RA.

6.12.4.2 The jurisdiction enforces rules substantially equivalent to this Section, and

6.12.4.3 A copy of the statement is furnished to the Commissioner.

6.12.5 If the device fails to withstand a load test it shall be deemed unsafe and shall not be used until and unless it has withstood a subsequent load test without failure in any material respect. If the device has withstood a load test without failure in any material respect, it shall be required to be so tested again before going into normal operation only if rebuilt or modified or if there are reasonable grounds to believe that a further test is necessary before the next required load test to assure safety and the Commissioner orders such test to be made.

6.13 IDENTIFICATION AND RATING PLATES.

*6.13.1 Every amusement device shall be identified by the name and address of the manufacturer, a trade or descriptive name and the physical information prescribed in Section 6.13 and in Part VI.

*6.13.2 A metal plate shall be affixed to the amusement device readily visible and legible at all times and shall contain the following information:

*6.13.2.1 Owner's name and address

*6.13.2.2 Department of Consumer Affairs license number

*6.13.2.3 Name of device

*6.13.2.4 Capacity of device

*6.13.2.5 Speed of device

*6.13.3 Information other than as required in Section 6.13.2 may be kept in an office on the same premises.

*6.13.4 If an amusement device or its supporting structure is altered or its name changed, or its capacity increased, or its speed increased, or its ownership changed, the metal plate shall be removed and a new metal plate with the correct information shall be affixed to the device.

*6.14 ASSEMBLY AND DISASSEMBLY.

*6.14.1 The assembly and disassembly of an amusement device shall be done by or under the immediate supervision of a person experienced and instrumental in the proper performance of such work in respect to the device or structure.

* 6.14.2 Assembly work shall be performed in a proper and workmanlike manner. Parts shall be properly aligned and shall not be bent, distorted, cut or otherwise injured to force a fit. Parts requiring lubrication shall be lubricated in course of assembly and as required during operation. Fastening and locking devices, such as bolts, cap screws, cotter pins and lock washers, shall be installed where required for safe operation. Nuts shall be drawn tight, cotter pins shall be spread and lock nuts firmly set. "R" pins shall only be used in locations recommended by the manufacturer or licensed PE or RA.

* 6.14.3 Parts which are excessively worn or which have been materially damaged shall not be used. Close visual inspection of parts shall be made during assembly to discover such wear or damage and immediate inspection of fastening devices shall be made after assembly to assure that they have been properly installed.

* 6.14.4 Persons engaged in the assembly or disassembly of amusement devices shall be provided with and shall use tools of proper size and design to enable the work to be done in a proper manner. Broken, damaged and unsuitable tools shall not be used.

* 6.14.5 Assembly and disassembly of amusement devices shall be done under light conditions sufficient to permit the work to be properly performed and inspected.

* 6.14.6 A sufficient number of persons to do the work properly shall be engaged for the assembly or disassembly of amusement devices. Persons not so engaged shall be prevented from entering the area in which the work may create a hazard.

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*6.14.7 The owner of an amusement device shall comply with the manufacturers construction manual for the assembly and disassembly of the device. The manufacturers construction manual shall be kept with the amusement device and shall be available for use by an authorized representative of the Department.

*6.15 LIGHTING.

*6.15 Amusement devices access thereto and means of egress therefrom shall, while in operation or occupied, be provided with illumination by natural or artificial means sufficient to guard against injuries to the public.

PART III OPERATION

7.0 NOTICE.

7.0.1 No amusement device shall be used at any time or location unless prior notice of intent to use the same has been given to the Commissioner.

*7.0.2 Notice of planned schedules shall (1) be in writing, (2) identify the device, (3) state the intended dates and locations of use, and (4) be given to the Department's Elevator Division and Bureau of Electrical Control at least five days before the first intended date of use.

7.1 DAILY INSPECTION AND TEST.

*7.1.1 In addition to the requirement set forth in Sections 5.0, 5.1 and 5.2 an amusement device shall be inspected and tested on each day before it is intended to be used. The inspection and test shall be made by a qualified person experienced and instructed in the proper assembly and operation of the device and shall be performed before the device is put into normal operation.

7.1.2 The inspection and test shall include the operation of control devices, speed-limiting devices, brakes and other equipment provided for safety.

*7.1.3 In addition to the requirements of 5.2.1. a record of each inspection and test shall be made at once, upon completion of the test, and shall be kept with the amusement device and available to the Commissioner or authorized representative for at least one year.

*7.2 LOCATION OF CONTROLS. Controls for the starting and stopping of amusement devices shall be so located that the operator of the device has a clear view of the point at which passengers are loaded and unloaded.

*7.3 CONTROL OF OPERATION. Amusement devices shall be operated only by designated competent operators who have secured a Certificate of Competence from the Commissioner in accordance with the provisions of Code §27-1005.

*7.3.1 The device operator shall operate no more than one device at any given time.

*7.3.2 The device operator shall have knowledge of the use and function of all normal and emergency operating controls and the proper use of the device.

*7.3.3 The device operator shall be in the immediate vicinity of the operating controls during operation and no other person shall be suffered or permitted to handle such controls during normal operations. This provision shall not apply to amusement devices designed to be operated or

controlled safely by a passenger.

*7.3.4 The device operator shall not operate any device when under the influence of alcohol or drugs.

*7.3.5 The device operator shall operate the device in accordance with the manufacturers operating manual. The manufacturers operating manual shall be kept with the amusement device or in an office on the same premises and shall be available for use by an authorized representative of the Department.

*7.3.6 The device operator shall lock-out the electrical disconnect switch when restoration of electrical power to amusement device could create a hazard to persons during the performance of maintenance, repair, inspection or an emergency evacuation of passengers, and insure that it retains lock-out until such time that restoration of power will not create hazard.

*7.4 OVERLOAD AND OVERSPEED.

*7.4.1 An amusement device shall not be overcrowded, or loaded in excess of its safe carrying capacity.

*7.4.2 An amusement device shall not be operated at an unsafe speed or at a speed beyond that recommended by the manufacturer.

*7.5 WIND AND STORM HAZARD. An amusement device which is exposed to wind or storm shall not be operated under dangerous conditions except to release or discharge occupants.

*7.6 UNSAFE. If the Commissioner finds that an amusement device presents an imminent danger, he may attach to said device an UNSAFE notice, warning all persons against the use of the device. Such notice shall not be removed until the device is made safe, and then only by a representative of the Commissioner. The device shall not be used during the time that the notice is attached.

*7.7 CLEANLINESS.

*7.7.1 A suitable number of metal containers shall be provided in and around amusement devices. Excessive accumulations of trash or refuse shall be promptly removed.

*7.7.2 All parts of amusement devices and temporary structures used by passengers or customers shall be maintained in a clean condition.

*7.8 PASSENGER CONDUCT.

*7.8.1 The owner shall have the right to refuse any member of the public admission to a device if his bearing or conduct will endanger himself or other members of the public.

*7.8.2 The owner shall have the right to refuse admittance to any device if the intended passengers health or physical condition makes it unsafe for him to use the device.

*7.8.3 The owner shall refuse a passenger seeking admission to an amusement device if the passenger cannot meet a guardian or height restriction if the device is subject to such a restriction. Legible signs to this effect shall be posted in full view of the public seeking admission to the amusement device. Refer to the requirements of the Department of Consumer Affairs.

*7.9 WARNING SIGNS.

*7.9.1 Where an amusement device exposes a passenger

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to high speed, substantial centrifugal force or a high degree of excitement, the owner shall post a conspicuous warning sign at the entrance to the device advising the public of the risk to passengers.

* 7.9.2 The sign required by 7.9.1 shall be at least 2 feet by 2 feet in sharply contrasting colors.

* 7.9.3 The sign required by 7.9.1 shall read as follows or express an equivalent warning.

The following people should not ride this amusement device:

1. Those under the influence of alcohol.
2. Those under influence of narcotics.
3. Those with heart conditions.
4. Pregnant women.
5. Handicapped people.
6. Those subject to motion sickness.
7. Those with back ailments.

* 7.9.4 The following additional signs may be required to be posted:

* 7.9.4.1 Passengers shall remain seated until device comes to complete halt!

* 7.9.4.2 No Standing!

* 7.9.4.3 No Smoking!

* 7.9.4.4 No Food or Drink!

PART IV. BUILDING AND STRUCTURES THAT ARE A FUNCTIONAL PART OF AN AMUSEMENT DEVICE.

8.0 SCOPE. This part shall apply to the construction of buildings and structures that are a functional part of an amusement device. To be a functional part of an amusement device, the building or structure shall be a contributing factor to the amusement, pleasure, thrill or excitement of the device.

8.1 CONSTRUCTION. Building Code Occupancy group classification, assembly, designation F-2, shall apply to buildings and structures constructed according to this part.

8.2 OCCUPANCY SAFETY. The following shall be provided in buildings and structures that are a functional part of an amusement device.

8.2.1 Posted signs indicating the number of persons who may safely occupy the space.

8.2.2 Illuminated exit signs in compliance with Article 6 of Subchapter 6 of the Code.

8.2.3 Not less than two fire extinguishers of a 10 pound ABC multi-purpose type approved by Underwriters Laboratory, Inc.

PART V. ENCLOSED BUILDINGS AND STRUCTURES WHICH IN THEIR ENTIRETY CONSTITUTE THE AMUSEMENT DEVICE.

9.0 SCOPE. This part shall apply to the construction of enclosed buildings and structures which in their entirety constitute the amusement device. It functions by

pedestrians passage (by persons and/or children) through the enclosed building or structure which activates devices which contribute to their pleasure, thrill or excitement.

9.1 CONSTRUCTION. Building Code occupancy group classification, assembly, designation F-3, shall apply to buildings and structures constructed according to this part. Fun houses and haunted houses are representative occupancies.

9.2 OCCUPANCY SAFETY. The following shall be provided in buildings and structures occupied in accordance with this part:

*9.2.1 A posted sign at a prominent entrance location of 4 inch high letters stating:

OCCUPANCY BY MORE THAN 75 PERSONS IS UNLAWFUL.

9.2.2 A posted sign at a prominent entrance location stating:

NO SMOKING OR OPEN FLAME.

*9.2.3 Illuminated exit signs in compliance with Article 6 of Subchapter 6 of the Code.

*9.2.4 Automatic Fire Detectors in compliance with reference standards RS 17-3 and RS 17-5E. Closed circuit supervised detectors shall be installed in accordance with the above referenced standards.

9.2.4.1 Closed circuit supervised means all detector loops are complete. Should a break occur in the loop wiring, a trouble signal will sound at the control panel.

*9.2.5 Emergency lighting in compliance with Code §27-542; and activated at the same time as the automatic fire detection system.

9.2.6 Not less than two fire extinguishers of a 10 pound ABC multi-purpose type approved by Underwriters Laboratory, Inc.

PART VI. PHYSICAL INFORMATION TO BE PROVIDED FOR AMUSEMENT DEVICES.

10.0 SCOPE.

*10.0.1 ANSI/ASTM F698-1988. Standard Specification for Physical Information to be provided for Amusement Devices, as modified.

*10.0.2 The specification in section 10.1 covers the minimum requirements for information regarding amusement devices that shall be provided to the end user by the manufacturer or seller of amusement devices.

***10.1 SIGNIFICANCE AND USE.**

*10.1.1 The purpose of this specification is to provide the minimum information necessary for the proper identification, placement, erection and operation of each amusement device.

***10.2 INFORMATION REQUIREMENTS.**

*10.2.1 The information in sections 3.2 to 3.16 shall be either included or indicated as not applicable for all amusement devices by the manufacturer or seller at the time of sale of such amusement device.

***10.2.2 DEVICE SERIAL NUMBER.**

A manufacturers issued unique identifying number or code affixed to the device in a permanent fashion.

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*10.2.3 DEVICE MODEL NUMBER. A manufacturer's unique identifying number or code assigned to each manufactured type of device having the same structural design or components.

*10.2.4 DATE OF MANUFACTURE. The date (month and year) determined by the manufacturer that the given device met his required construction specifications.

*10.2.5 TRAILERING INFORMATION. Each trailer necessary for the transport of a portable amusement device shall be provided with the following information: height, width, length and weight.

10.2.6 STATIC INFORMATION. The following information shall be provided for the amusement device when it is in a non-operational state with no passengers: height, width, diameter and weight.

10.2.7 DEVICE SPEED.

*10.2.7.1 Maximum revolutions per minute, or

*10.2.7.2. Maximum feet per second or miles per hour.

*10.2.8 DIRECTION OF TRAVEL. When the proper direction of travel is essential to the design operation of the device, the manufacturer shall designate the direction of travel, including reference point for this designation.

*10.2.9 POWER REQUIREMENTS.

*10.2.9.1 ELECTRICAL. Total electrical power required to operate the device designated in watts, volts and amperes, including minimum and maximum voltage limits.

*10.2.9.2 MECHANICAL. Minimum horsepower necessary to operate the device properly.

*10.2.10 LOAD DISTRIBUTION PER FOOTING.

*10.2.10.1 Maximum static loading of each footing of an amusement device, and

*10.2.10.2 Maximum dynamic loading of each footing of an amusement device.

*10.2.11 PASSENGER CAPACITY.

*10.2.11.1 Maximum total passenger weight, and

*10.2.11.2 Maximum number of passengers.

*10.2.12 RIDE DURATION. The actual time the ride is in operation or a passenger is exposed to the elements of the device functions, including passenger restrictions to maximum exposure time shall be included.

*10.2.13 RECOMMENDED BALANCE OF PASSENGER LOADING OR UNLOADING.

When passenger distribution is essential to the proper operation of the device, the appropriate loading and unloading procedure, with respect to weight distribution shall be provided.

*10.2.14 RECOMMENDED PASSENGER RESTRICTIONS.

Where applicable, any recommended passenger limitations such as, but not limited to, height, weight, age, passenger placement, or any other appropriate restrictions.

*10.2.15 ENVIRONMENTAL RESTRICTIONS.

Recommendations for operational restrictions relating to environmental conditions such as, but not limited to, wind, rain, salt corrosion, and extreme heat or cold.

*** 11-91 BCR; 934-84 BCR

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